

Panasonic

900MHz Digital Cordless Answering System

Model No. **KX-TC1733B**

Pulse-or-tone dialing capability

Operating Instructions



Caller ID Compatible

PLEASE READ BEFORE USE AND SAVE.

Charge the battery for about 15 hours before initial use.

Panasonic World Wide Web address: <http://www.panasonic.com>
for customers in the USA or Puerto Rico

Preparation

Cordless Telephone

Answering System

Useful Information

Before Initial Use

Please read **IMPORTANT SAFETY INSTRUCTIONS** on page 76 before use.
Read and understand all instructions.

Thank you for purchasing your new Panasonic cordless telephone.

Caller ID and Call Waiting Service, where available, are telephone company services. After subscribing to Caller ID, this phone will display a caller's name and phone number. Call Waiting Caller ID, which displays a second caller's name and phone number while the user is on another call, requires a subscription to both Caller ID and Call Waiting.

Attach your purchase receipt here.

For your future reference

Serial No _____
(found on the bottom of the unit)

Date of purchase _____

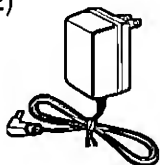
Name and address of dealer _____

Accessories (included)

For extra orders, call 1-800-332-5368

☐ AC Adaptor (p. 12)

Order No
KX-TCA1-G



one

☐ Telephone Line Cord (p. 12)



one

☐ Wall Mounting Adaptor (p. 66)

Order No
PQKL10035Z1



one

☐ Belt Clip (p. 68)

Order No
PQKE10130Z1

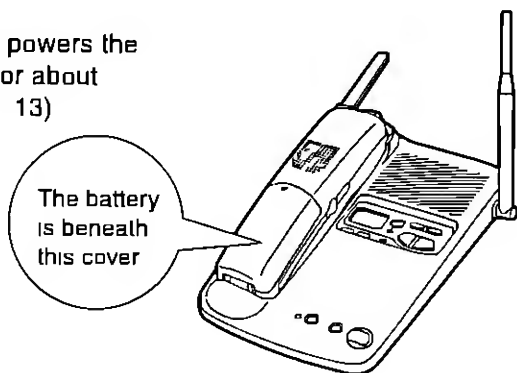


one

For Best Performance

Battery Charge

A rechargeable Ni-Cd battery powers the handset. Charge the battery for about **15 hours** before initial use (p. 13)

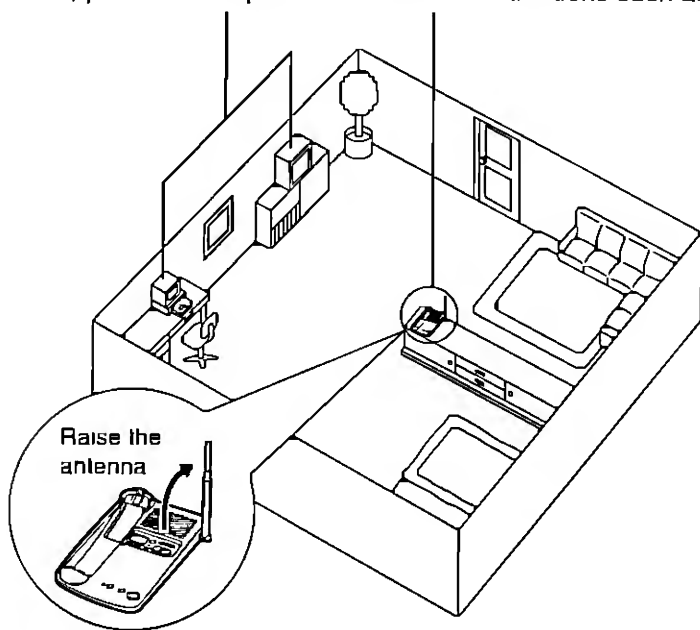


Base Unit Location/Noise

Calls are transmitted between the base unit and the handset using wireless radio waves. **For maximum distance and noise-free operation**, the recommended base unit location is

Away from electrical appliances such as a TV, personal computer

In a **HIGH** and **CENTRAL** location with no obstructions such as walls



Contents

Preparation

Location of Controls	6
Displays	8
Settings	12
Connections	12
Battery Charge	13
Selecting the Dialing Mode	15
Selecting the Line Mode	16
Programmable Functions	17
Setting the Auto Talk Feature	18
Selecting the Ringer Volume	19
Selecting the LCD Contrast	20
Preparing the Answering System	21
Greeting Message	21
Programming Summary for the Answering System	23
Day and Time Adjustment	24
Selecting the Caller's Recording Time	26
Selecting the Number of Rings	27

Cordless Telephone

Making Calls	28
Answering Calls	32
Caller ID Service	33
Using the Caller List	35
Viewing the Caller List	35
Calling Back from the Caller List	37
Editing the Caller's Phone Number	38
Storing Caller List Information in the Directory	39
Erasing Caller List Information	40
Using the Directory	41
Storing Names and Numbers in the Directory	41
Steps for Entering Names and Symbols	43
Finding Items in the Directory	45
Dialing from the Directory	46
Editing an Item in the Directory	47
Erasing an Item from the Directory	48

Intercom	49
Special Features	50
Automatic Security Code Setting	50
Temporary Tone Dialing	
(For Rotary or Pulse Service Users)	50
For Call Waiting Service Users	51
How to Use the PAUSE Button	
(For Analog PBX Line/Long Distance Service Users)	51
FLASH Button	52

Answering System

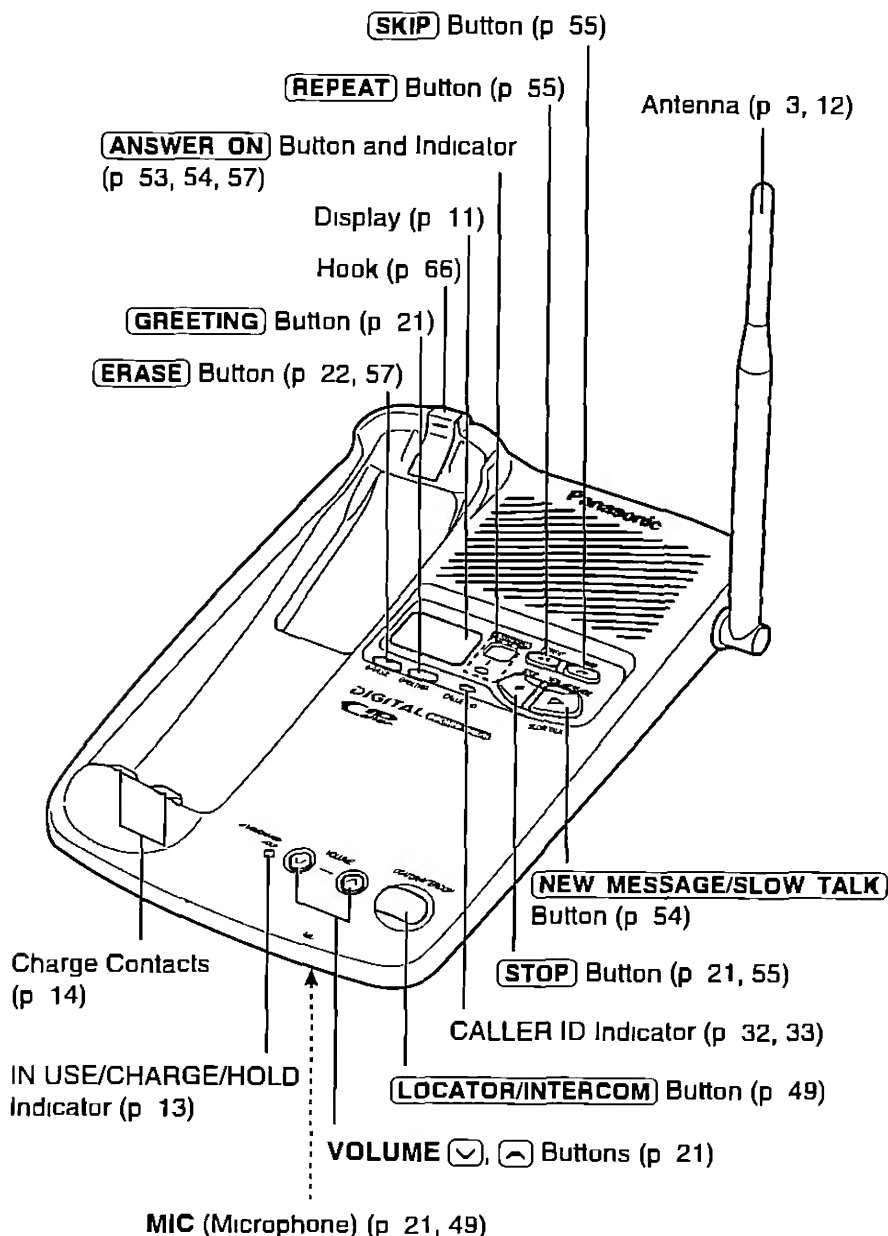
Automatic Answering Operation	53
Setting the Unit to Answer Calls	53
Listening to Messages	54
Slow Talk Message Playback	54
From the Handset	56
Erasing Messages	57
Remote Operation from a Touch Tone Phone	58
Setting the Remote Code	59
Voice Menu	60
Direct Remote Operation	62
Remote Operation with the Handset	64

Useful Information

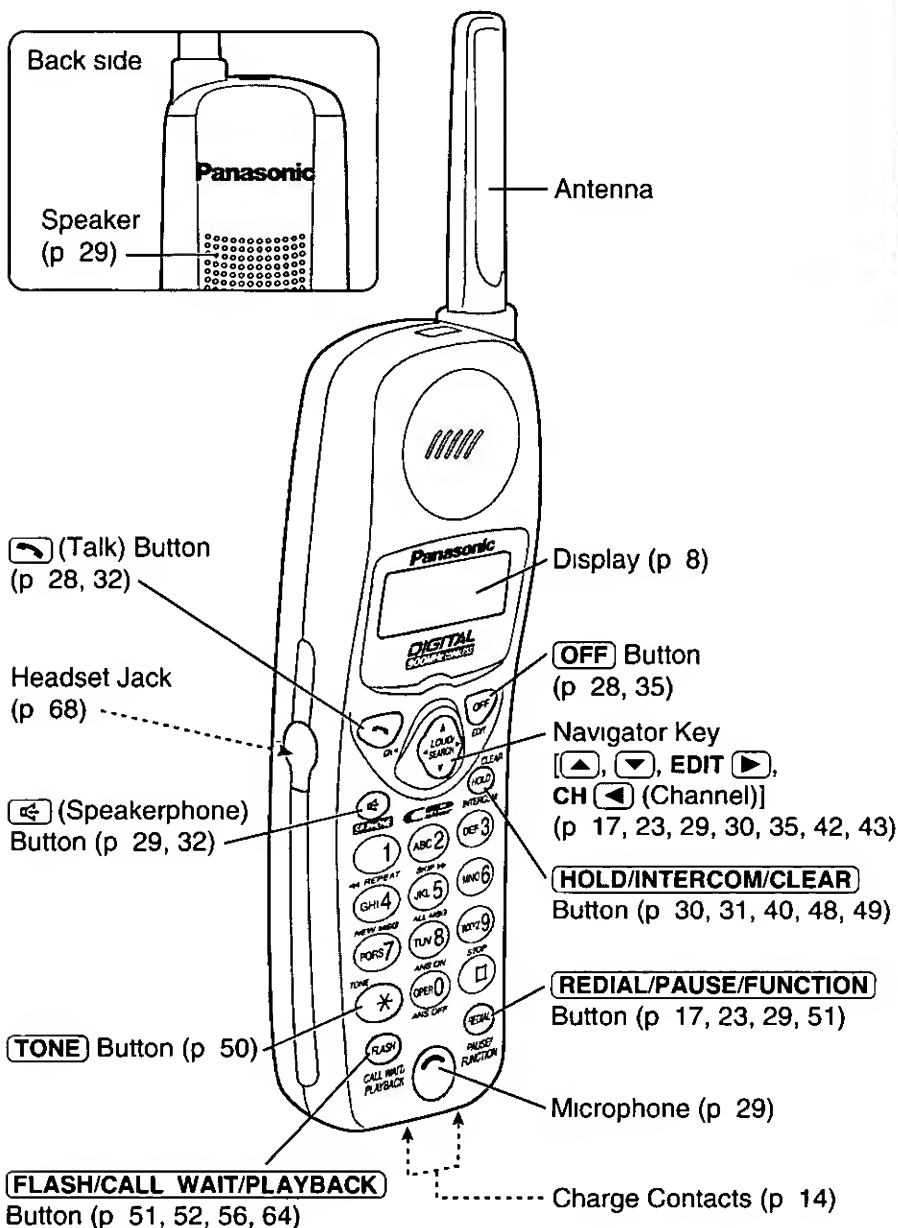
Wall Mounting	66
Using the Belt Clip	68
Using an Optional Headset	68
Battery Replacement	69
Adding Another Phone	69
Before Requesting Help	70
Important Safety Instructions	76
FCC and Other Information	78

Location of Controls

Base unit



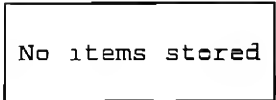
Handset



Displays

Both the handset and the base unit show you instructions and information on the displays. These display prompts are shown below.

Handset




No items stored

The Caller List is empty or there are no stored items in the directory.



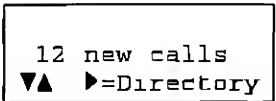
Recharge

The battery needs to be charged. Place the handset on the base unit to charge the battery (p. 13).



12 new calls
{■■■■}

The display shows the number of new calls and the battery strength (p. 13) while the handset is on the base unit.



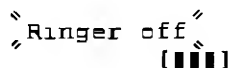
12 new calls
▼▲ ▶=Directory

The display shows the number of new calls when ▼ or ▲ is pressed while the handset is off the base unit.

To search from the most recent call, press ▼

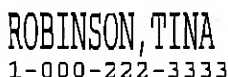
To search from the oldest call, press ▲ (p. 35)

To go to the directory list, press EDIT ► (Directory key)



"Ringer off"
{■■■■}

When the ringer volume is set to OFF (p. 19), "Ringer off" will flash for about 45 seconds before the unit returns to the standby mode (p. 14).



ROBINSON, TINA
1-000-222-3333

When a call is received, the display shows the caller's name and number after the first ring.



Talk

01-06-35 [■■■■]

During a conversation, the display shows the length of the call (ex 1 hour, 6 minutes and 35 seconds) The battery strength is also displayed (p 13)

No link to base
Place on cradle
and try again

The handset has lost communication with the base unit Place the handset on the base unit and try again

SMITH, JACK
1-222-333-4444
11 20A JAN12 x3

This is a name from the Caller List
The display shows
—the caller's name,
—the caller's number,
—the time and date of the last call
(ex Jan 12, 11 20 AM), and
—the number of times called (ex 3 times)

Ann
1234567890

This is a name from the directory The stored name and phone number are displayed

Directory full

When trying to store an item or Caller List information in the directory, the directory memory is full (p 39, 42)



Save error

During a programming procedure, the handset has lost communication with the base unit
Move closer to the base unit

► Displays

Intercom hold

00-00-07 [■■■■]

An outside call has been put on hold by the handset in the intercom mode. To release the hold, press  or .





BROWN, NANCY

1-000-222-3333

----Waiting----

A second call is received during a conversation (p 51)

Please lift up
and try again

, , CH  or EDIT  was pressed while the handset was on the base unit.
Lift the handset and press the button again.

Not available

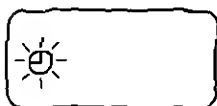
, , CH  or EDIT  was pressed while the base unit was not in the standby mode.

Remote
operation

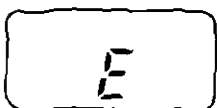
[■■■■]

The handset is operating the answering system remotely (p 64)

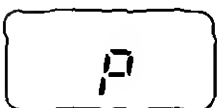
Base unit



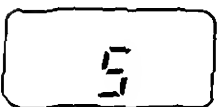
The clock needs adjusting (p 24, 25)



Your greeting message was not recorded correctly Record it again (p 21)

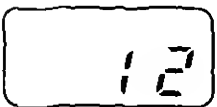


The unit is in the answering system programming mode

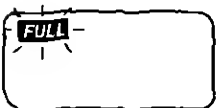


The speaker volume level is set to "5"
You can select

- 9 levels (0–8) are available while using the answering system (p 21, 54)
- 8 levels (1–8) are available while using the intercom (p 49)



12 messages have been recorded



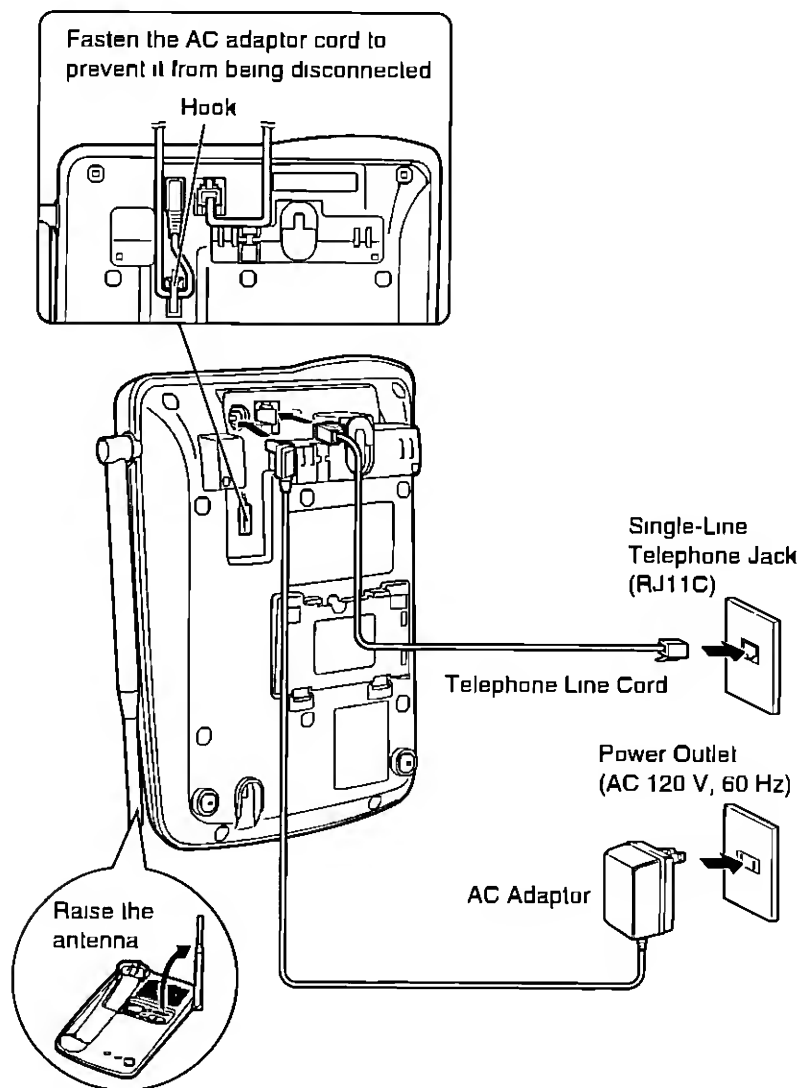
Memory is full Erase some, or all, of the messages (p 57)



The recording time is set to "Greeting only" (p 26) (The display is blank)

Settings

Connections



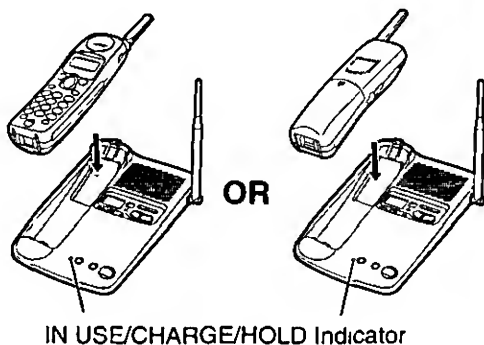
- **USE ONLY WITH Panasonic AC ADAPTOR KX-TCA1 (Order No. KX-TCA1-G)**
- The AC adaptor must remain connected at all times (It is normal for the adaptor to feel warm during use.)
- To connect a standard telephone on the same line, see page 69
- If your unit is connected to a PBX which does not support Caller ID services, you cannot access those services



Battery Charge

Place the handset on the base unit and charge for about **15 hours** before initial use

- The IN USE/CHARGE/HOLD indicator lights



Battery strength

You can check the battery strength on the display while the handset is on the base unit, while it is in use (making/answering a call etc), or after viewing the Caller List or directory items, programming etc
The battery strength will remain on the display for a few seconds after using the handset, then the display will return to the standby mode (see next page)

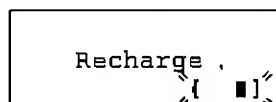
The battery strength is as shown in the chart below

Display prompt	Battery strength
{ ■■■ }	Fully charged
{ ■■ }	Medium
{ ■ }	Low
{ ■ } (flashing)	Needs to be recharged

► Settings

Recharge

- Recharge the battery when
- “Recharge” is displayed,
 - “[■]” flashes on the display, or
 - the handset beeps intermittently while it is in use



- If you DO NOT recharge the handset battery for more than 15 minutes, the display will keep indicating “Recharge” and/or “[■]” will continue to flash

Battery information

After your Panasonic battery is fully charged (p 13)

Operation	Approx. battery life
While in use (TALK)	Up to about 6 hours
While not in use (Standby)	Up to about 14 days

- Battery life may be shortened depending on usage conditions, such as viewing the Caller ID Caller List or directory list, and ambient temperature
- **Clean the handset and the base unit charge contacts with a soft, dry cloth once a month** Clean more often if the unit is subject to grease, dust or high humidity Otherwise the battery may not charge properly
- If the battery is fully charged, you do not have to place the handset on the base unit until “Recharge” is displayed and/or “[■]” flashes This will maximize the battery life
- The battery cannot be overcharged



Standby Mode (The handset is off the base unit)


The handset goes into the standby mode after you finish using the handset (making/answering a call, viewing the Caller List or directory list etc) The display is blank, but the handset can receive calls
The battery life is conserved in this mode



Selecting the Dialing Mode


If you have touch tone service, set to "Tone" If rotary or pulse service is used, set to "Pulse" Your phone comes from the factory set to "Tone"
Make sure the unit is in the standby mode.



- 1 Press **REDIAL/PAUSE/FUNCTION**


Program
 ▶Save directory
 Ringer volume
- 2 Press  or  repeatedly until the arrow points to "Program"

Ringer volume
 ▶Program
 Save directory
- 3 Press **EDIT** 

TAD program
 ▶LCD contrast
 Set flash time
- 4 Press  or  repeatedly until the arrow points to "Set dial mode"

Set line mode
 ▶Set dial mode
 Talk switching
- 5 Press **EDIT** 

Dial mode
 Tone
 ▼▲ ▶=Save
- 6 Press  or  to select "Pulse" or "Tone"

Dial mode
 Pulse
- 7 Press **EDIT**  (Save key)
 - A beep sounds
 - To return to the standby mode, press **OFF**

•You can exit the programming mode any time by pressing **OFF**



► Settings


Selecting the Line Mode



If the line is connected to a low voltage system such as a PBX, set to "B"
Your phone comes from the factory set to "A"


Make sure the unit is in the standby mode.




- 1 Press **REDIAL/PAUSE/FUNCTION**

Program
►Save directory
Ringer volume
- 2 Press  or  repeatedly until the arrow points to "Program"

Ringer volume
►Program
Save directory
- 3 Press **EDIT** 

TAD program
►LCD contrast
Set flash time
- 4 Press  or  repeatedly until the arrow points to "Set line mode"

Set flash time
►Set line mode
Set dial mode
- 5 Press **EDIT** 

Line mode	A
▼▲	►=Save
- 6 Press  or  to select "B" or "A"
- 7 Press **EDIT**  (Save key)
 - A beep sounds
 - To return to the standby mode, press **OFF**

Line mode	B
-----------	---

■You can exit the programming mode any time by pressing **OFF**

Programmable Functions



You can program the following function items **using the handset near the base unit**. The display shows the programming instructions. See the corresponding pages for function details.

Make sure the unit is in the standby mode.

Press **[REDIAL/PAUSE/FUNCTION]**.



<Function menu>*

- | | |
|-----------------------|--|
| ▶Save directory | To store an item in the directory (p. 42). |
| Ringer volume | To select the ringer volume (p. 19). |
| Program | |



Press **EDIT**

<Function menu>*

- | | |
|----------------------|--|
| ▶LCD contrast | To select the LCD contrast (p. 20). |
| Set flash time | To select the flash time (p. 52). |
| Set line mode | To select the line mode (p. 16). |
| Set dial mode | To select the dial mode (p. 15). |
| Talk switching | To set the auto talk feature (p. 18). |
| TAD program | To program answering system functions.(p. 23). |



During programming

*To select a desired function item, press or repeatedly until the arrow points to the item. Then press **EDIT** to go to the next step.



- If the handset displays "No link to base Place on cradle and try again." and an alarm tone sounds, move closer to the base unit and try again.
- You can exit the programming mode any time by pressing **[OFF]**.
- If you do not press any buttons for 60 seconds, the unit will return to the standby mode.


► Programmable Functions



Setting the Auto Talk Feature


The Auto Talk feature allows you to answer a call by lifting the handset off the base unit without pressing  or . If you want to use this feature, turn the feature ON by programming. Your phone comes from the factory set to OFF.




Make sure the unit is in the standby mode.

- 1 Press **REDIAL/PAUSE/FUNCTION**
- 2 Press  or  repeatedly until the arrow points to "Program".



Ringer volume
► Program
Save directory
- 3 Press **EDIT** 

TAD program
► LCD contrast
Set flash time
- 4 Press  or  repeatedly until the arrow points to "Talk switching".

Set dial mode
► Talk switching
TAD program
- 5 Press **EDIT** 

Auto talk
Off
▼▲ ►=Save
- 6 Press  or  to select "On" or "Off"
- 7 Press **EDIT**  (Save key)
 - A beep sounds
 - To return to the standby mode, press **OFF**

Auto talk
On

- You can exit the programming mode any time by pressing **OFF**
- To answer a call when the Auto Talk feature is OFF, lift the handset off the base unit and press  or 

Selecting the Ringer Volume

You can program the ringer volume to HIGH, LOW or OFF. If set to OFF, the unit will not ring. Your phone comes from the factory set to HIGH. **Make sure the unit is in the standby mode.**

- 1 Press **REDIAL/PAUSE/FUNCTION**
- 2 Press **▼** or **▲** repeatedly until the arrow points to "Ringer volume"

Save directory
► Ringer volume
Program

- 3 Press **EDIT** **▶**

HIGH
Ringer
Low **||||||** High
▼▲

- 4 Press **▼** or **▲** to select the desired volume
 - The selected volume is displayed and rings
 - The handset will return to the standby mode

LOW
Ringer
Low **||** High
▼▲

- **To turn the ringer OFF**, press and hold **▼** until 2 beeps sound

OFF
Ringer off

- **To turn the ringer ON**, press **▲** or **▼**

- The ringer will sound at the LOW level

- When you replace the battery, the selected ringer volume setting will return to the factory set (HIGH). Reprogram if necessary.

► Programmable Functions

Selecting the LCD Contrast

You can program the handset LCD contrast (5 levels) To make the handset display clearer, set to high level Your phone comes from the factory set to level 3

Make sure the unit is in the standby mode


1 Press **REDIAL/PAUSE/FUNCTION**

2 Press  or  repeatedly until the arrow points to "Program"

Ringer volume
►Program
Save directory

3 Press **EDIT** 

TAD program
►LCD contrast
Set flash time

4 While the arrow points to "LCD contrast", press **EDIT** 


LCD contrast
Low  High
▼▲  =Save

5 Press  or  to select the desired contrast

- Each time you press  or , the LCD contrast will change

6 Press **EDIT**  (Save key)

- A beep sounds
- To return to the standby mode, press **OFF**

LCD contrast
Low  High

- You can exit the programming mode any time by pressing **OFF**

Preparing the Answering System ➔

Greeting Message

You can record a personal greeting message of **up to 2 minutes**. If a greeting message is not recorded, one of two pre-recorded greetings will be played when a call is received (p 22)

All messages (greeting, incoming, etc) are stored in digital memory (p 22). The **total recording time is about 15 minutes**.

We recommend you record a **brief greeting message** (see sample below) in order to leave more time for recording new messages.

To record a greeting message

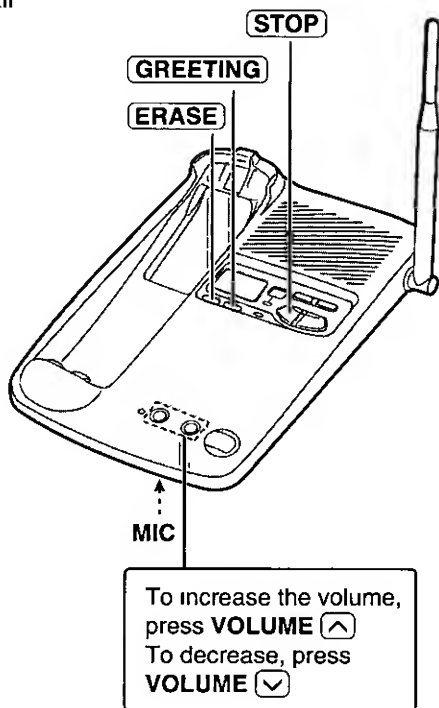
1 Press and hold **[GREETING]** until "Record greeting after the beep" is heard

2 Talk clearly, about 8 inches (20 cm) away from the **MIC** (microphone)

- The base unit display shows the elapsed recording time
- If you record for over 2 minutes, the unit will automatically stop recording

3 When finished, press **[STOP]**

- **To check** the recorded greeting, press **[GREETING]** briefly
- **To change** the message, start again from step 1



Greeting message sample

"Hello, this is (your name and/or number) Sorry I cannot take your call Please leave a message after the beep Thank you "

► Preparing the Answering System

To erase the recorded greeting message

Press **[GREETING]** briefly → Press **[ERASE]** while the message is being played

- The unit will answer a call with a pre-recorded greeting

Pre-recorded greeting message

If you do not record a greeting message (p 21), one of two messages will be played when a call is received, depending on the caller's recording time (p 26)

To check the pre-recorded greeting, press **[GREETING]** briefly

- A pre-recorded greeting will be played as follows
- When the recording time is set to "1 minute" or "3 minutes"
"Hello, we are not available now Please leave your name and phone number after the beep We will return your call "
- When the recording time is set to "Greeting only"
" Hello, we are not available now Please call again Thank you for your call "

Flash Memory Message Backup

Messages are stored on a "flash memory" IC chip and will not be affected by power failures All messages are saved until you erase them

Programming Summary for the Answering System

You can program the following functions using the handset near the base unit. See the page numbers below for details.

The unit must be in the standby mode before programming.

Lift the handset, and press **REDIAL/PAUSE/FUNCTION**

Press **▼** or **▲** to select "Program", and press **EDIT** **▶**

Press **▼** or **▲** to select "TAD program", and press **EDIT** **▶**

• If the handset displays "No link to base Place on cradle and try again " and an alarm tone sounds, move closer to the base unit and try again

Press **▼** or **▲** to select the desired function, and press **EDIT** **▶**

▶ Day and time

To adjust the day and time (p 24)

Remote code

To set the remote code (p 59)

Number of ring

To select the number of rings (p 27)

Recording time

To select the caller's recording time (p 26)

When finished setting, press **EDIT** **▶** (Save key)

• A beep sounds

• To return to the standby mode, press **OFF**

• To cancel during programming, press **OFF**. Start again from the beginning

• If you do not press any buttons for 60 seconds, the unit will return to the standby mode

► Preparing the Answering System

Day and Time Adjustment

Voice Day/Time Stamp: During playback, a synthesized voice will announce the day and time that each message was recorded.

- 1 Press **REDIAL/PAUSE/FUNCTION**.

Program
► Save directory
Ringer volume
- 2 Press **▼** or **▲** repeatedly until the arrow points to "Program".

Ringer volume
► Program
Save directory
- 3 Press **EDIT** **▶**.

TAD program
► LCD contrast
Set flash time
- 4 Press **▼** or **▲** repeatedly until the arrow points to "TAD program".

Talk switching
► TAD program
LCD contrast
- 5 Press **EDIT** **▶**.

Recording time
► Day and time
Remote code
- 6 While the arrow points to "Day and time", press **EDIT** **▶**.

SUN 12:00 AM
*=AM/PM #=day

 - "Set time" is announced.
 - If previously adjusted, the day/time will be heard.
- 7 Enter the current time (hour and minute) using a 4-digit number.
(Ex. To set 9:30, enter "0930".)
- 8 Press ***** to select "AM" or "PM".
Press **#** repeatedly to set the day.
- 9 Press **EDIT** **▶** to save new day and time.
 - The unit announces the day/time. The clock starts working.
 - To return to the standby mode, press **OFF**.



- In step 7, you cannot enter numbers greater than 12 **Do not use military time** (To set 13 00 hours, enter "0100" and select "PM" by pressing **[*]**)

If a power failure occurs, the time may be shifted When "⌚" flashes on the base unit display, reprogram the current day/time

To check the day/time

Repeat steps 1 to 6 on page 24

- The current day/time is heard When finished, press **[OFF]**

For Caller ID service users (p 33)

- The Caller ID information will reset the clock after the first ring if the adjusted time is incorrect However, the day will not be re-set by the Caller ID information Adjust the correct day by following the steps on page 24
- If the time has not previously been set, the Caller ID information will not adjust the clock
- The Caller ID information will automatically adjust the clock for daylight saving time

► Preparing the Answering System

Selecting the Caller's Recording Time

You can select "1 minute", "3 minutes" or "Greeting only" for the caller's recording time. Your phone comes from the factory set to "3 minutes".

1 Press **REDIAL/PAUSE/FUNCTION**.

2 Press **▼** or **▲** repeatedly until the arrow points to "Program".

Ringer volume
►Program
Save directory

3 Press **EDIT** **▶**.

TAD program
►LCD contrast
Set flash time

4 Press **▼** or **▲** repeatedly until the arrow points to "TAD program".

Talk switching
►TAD program
LCD contrast

5 Press **EDIT** **▶**.

Recording time
►Day and time
Remote code

6 Press **▼** or **▲** repeatedly until the arrow points to "Recording time".

Number of ring
►Recording time
Day and time

7 Press **EDIT** **▶**.

Recording time
:3 min
▼▲ ►=Save

8 Press **▼** or **▲** repeatedly until the desired recording time is displayed.

9 Press **EDIT** **▶** (Save key).

•A beep sounds.

•To return to the standby mode, press **OFF**.


Recording time
:Greeting only

If you select "Greeting only", the unit will answer a call with the greeting message, and then hang up. The unit will not record any incoming messages.

Selecting the Number of Rings

You can select the number of times the unit rings before the answering system answers a call, from "2" to "7" or "Toll saver"



Your phone comes from the factory set to "Toll saver"

- 1 Press **REDIAL/PAUSE/FUNCTION**
- 2 Press  or  repeatedly until the arrow points to "Program"

Ringer volume
▶ Program
Save directory

- 3 Press **EDIT** 



TAD program
▶ LCD contrast
Set flash time

- 4 Press  or  repeatedly until the arrow points to "TAD program"

Talk switching
▶ TAD program
LCD contrast

- 5 Press **EDIT** 



Recording time
▶ Day and time
Remote code

- 6 Press  or  repeatedly until the arrow points to "Number of ring"

Remote code
▶ Number of ring
Recording time

- 7 Press **EDIT** 

Number of rings
Toll saver
▼▲ ▶=Save

- 8 Press  or  repeatedly until the desired number of rings is displayed

- 9 Press **EDIT**  (Save key)

- A beep sounds
- To return to the standby mode, press **OFF**

Number of rings
: 2

*Toll saver

When you call the unit from a touch tone telephone

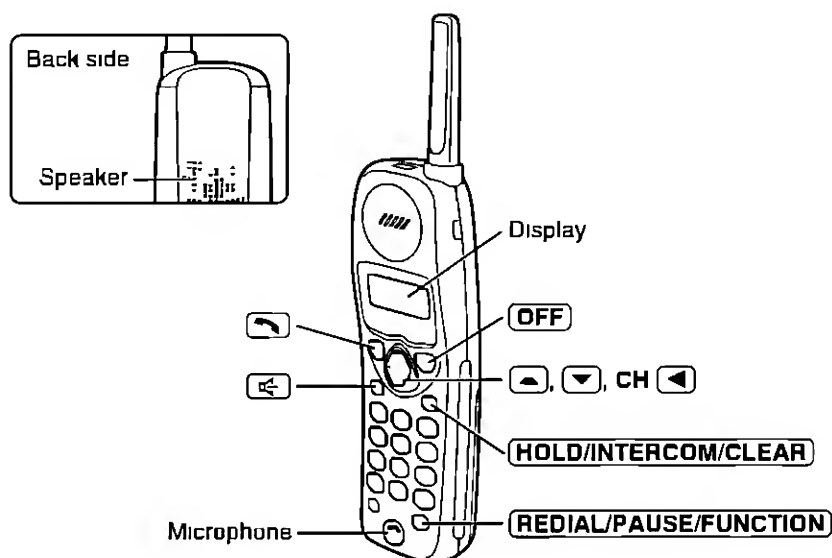
If the unit answers on the 2nd ring, there is at least one new message

If the unit answers on the 4th ring, there are no new messages

Hang up when you hear the 3rd ring. This will save you the toll charge for the call

Making Calls

To have a hands-free conversation, connect an optional headset to the handset (p 68)



1 Press

Talk

2 Dial a phone number

- The dialed number is displayed
- After a few seconds, the display will show the length of the call and the battery strength

Talk

1112222

Talk

00-00-00 {■■■■}

3 To hang up, press **OFF** or place the handset on the base unit

Off

00-01-08 {■■■■}

- If "No link to base Place on cradle and try again" is displayed and an alarm tone sounds in step 1, move closer to the base unit or place the handset on the base unit, and try again



To have a hands-free phone conversation (Using Digital Duplex Speakerphone)

1 Press

SP-phone

2 Dial a phone number

- The dialed number is displayed
- After a few seconds, the display will show the length of the call and the battery strength

SP-phone

1112222

3 When the other party answers, talk into the microphone

SP-phone

00-00-00 [||||]

4 To hang up, press **OFF** or place the handset on the base unit

Off

00-01-08 [||||]

- If "No link to base Place on cradle and try again" is displayed and an alarm tone sounds in step 1, move closer to the base unit or place the handset on the base unit, and try again

Hands-free Digital Duplex Speakerphone

For best performance, please note the following

- Talk alternately with the caller in a quiet room
- If the other party has difficulty hearing you, press to decrease the speaker volume
- If the other party's voice from the speaker cuts in/out during a conversation, press to decrease the speaker volume
- While talking using , you can switch to the hands-free phone conversation by pressing To switch back to the receiver, press

If noise interferes with the conversation

Press **CH** to select a clearer channel in the talk, speakerphone, intercom or remote operation mode, or move closer to the base unit

To redial the last number dialed on the handset

Press or → **REDIAL/PAUSE/FUNCTION**

► Making Calls


To dial after confirming the entered number

1 Dial a phone number


- If you misdial, press

HOLD/INTERCOM/CLEAR One digit is erased from the right. Dial the correct phone number

33344444

2 Press 

OR

To have a hands-free phone conversation, press , and when the other party answers, talk into the microphone

- After a few seconds, the display will show the length of the call and the battery strength

Talk

33344444

Talk



00-00-00 {||||}

3 To hang up, press **OFF** or place the handset on the base unit

To adjust the receiver volume (HIGH, MEDIUM or LOW) or speaker volume (6 levels) while talking

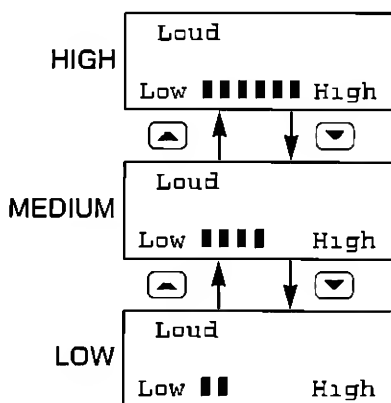
Press  or  while talking

While using 



- Each time you press  or , the volume level will change from MEDIUM (preset) to HIGH or LOW

- The display will return to the length of the call

- When you replace the battery, the selected receiver volume setting will return to the factory set (MEDIUM). Reprogram if necessary



While using 

- Each time you press  or , the volume level will change from level 1 to 6. Your phone comes from the factory set to level 3

Ex Speaker volume level 6



To put a call on hold

Press **HOLD/INTERCOM/CLEAR**

- "Hold" is displayed
- The IN USE/CHARGE/HOLD indicator on the base unit flashes
- If you do not press any key more than 6 minutes, an alarm tone will sound
- If you do not press any key more than 10 minutes after holding a call, a line will be disconnected

Hold

00-00-08 [■■■■]

To release the hold

Press  or 

- If another phone is connected on the same line (p. 69), you can also release the hold by lifting its handset

Backlit LCD display

The lighted handset display will stay on for a few seconds after pressing a handset button, lifting the handset off the base unit, hanging up a call, leaving the programming mode or ending the intercom

Answering Calls


When a call is received, the unit rings and the CALLER ID indicator on the base unit flashes quickly. If you subscribe to a Caller ID service, the calling party information will be displayed after the first ring (p. 33). In order to view the Caller ID information, please wait until the second ring to answer a call.

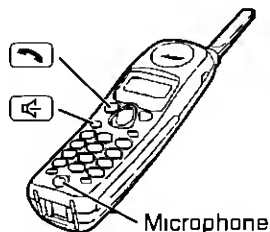
If the handset is off the base unit,

Press 

- You can also answer a call by pressing any dialing button (0 to 9, *, or #) (**Any Key Talk**)

OR

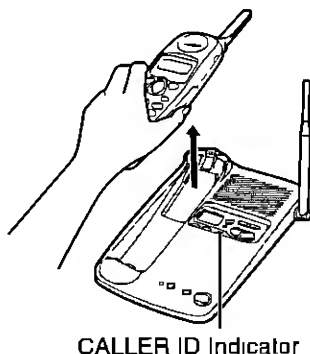
Press , and when the other party answers, talk into the microphone.



Auto Talk

If you set the Auto Talk feature to ON (p. 18), you can answer a call by lifting the handset off the base unit without pressing

 or 



When an optional headset is connected (p. 68), make sure to use the headset to talk with the caller. If you want to have a normal cordless phone conversation, disconnect the headset.

Caller ID Service



This unit is compatible with a Caller ID service offered by your telephone company. If you subscribe to a Caller ID service, the calling party's information will be displayed on the handset after the first ring.

The unit can record information of up to 50 different callers, including the time and date received and the number of times called, in the Caller List. The Caller List information is sorted by the most recent to the oldest call. When the 51st call is received, the first call is deleted.

Using the list, you can automatically call back a caller. You can store the callers' numbers from the Caller List into the directory.

If you subscribe to a Call Waiting Caller ID Feature, when a second call is received while talking, the new caller's name and phone number will be displayed (p. 51).

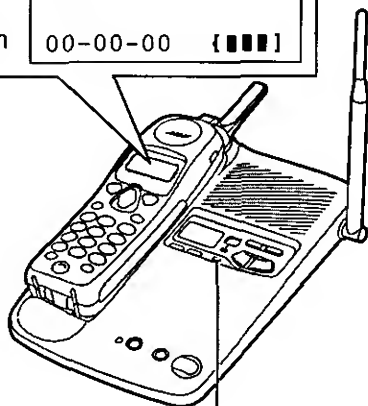
How caller information is displayed when a call is received

The handset display shows the caller's name and number after the first ring.

ROBINSON, TINA
1-000-222-3333

After you answer the call, the display will show the length of the call and the battery strength.

Talk
00-00-00 {■■■■}



The CALLER ID indicator flashes quickly when a call is being received.

► Caller ID Service

- Caller information cannot be displayed in the following cases
 - If the caller dialed from an area which does not provide a Caller ID service, the display will show "Out of area"
 - If the caller has requested not to display his/her information, the display will show "Private caller"
- If your unit is connected to a PBX which does not support Caller ID services, you cannot access those services
- The name display service may not be available in some areas. For further information, please contact your telephone company

To check the number of new calls

When new calls have been received, the CALLER ID indicator flashes slowly on the base unit

While the handset is on the base unit:

If you have received 10 new calls, the display will show the following



10 new calls
[■■■■]



CALLER ID Indicator

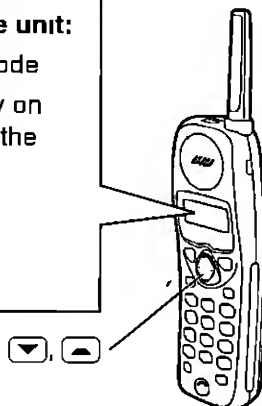
While the handset is off the base unit:

The unit must be in the standby mode

Press  or  to turn the display on

If you have received 10 new calls, the display will show the following

10 new calls
▼▲ ►=Directory



Using the Caller List



Viewing the Caller List

To check who has called, follow the steps below

Make sure the unit is in the standby mode

- 1** Lift the handset off the base unit and press or to enter the Caller List

- The display will show, for example, the following

2 new calls
▼▲ ▶=Directory

- You can go to the directory list by pressing **EDIT** (p 45)

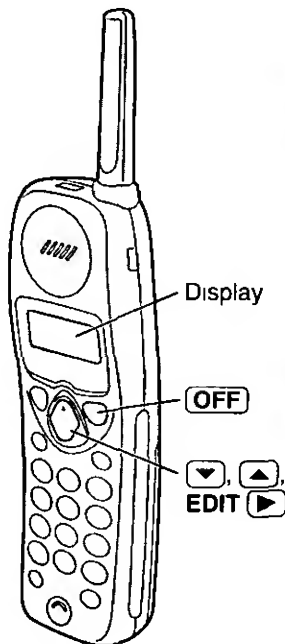
- 2** To search from the most recent call, press
To search from the oldest call, press

- To scroll between callers, press or

SMITH, JACK
1-222-333-4444
3.10P JUN10

- 3** To exit the list, press **OFF**

- The handset will return to the standby mode

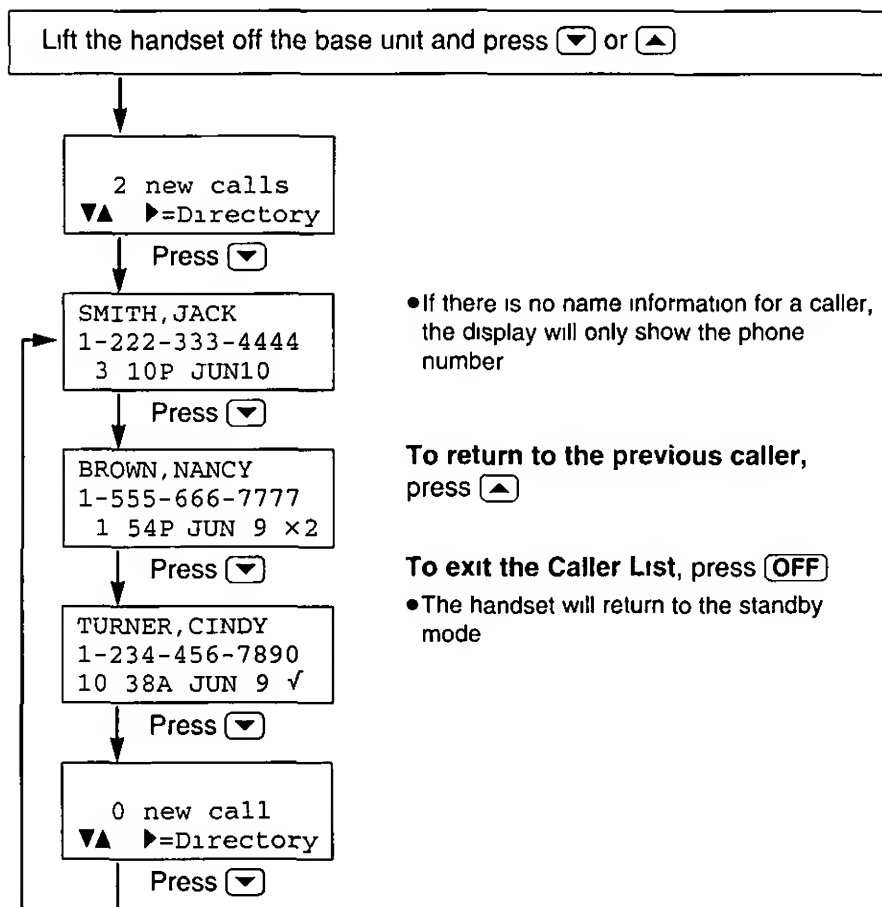


Cordless Telephone

- Once new calls have been checked, "✓" will be added
- If "No items stored" is displayed in step 1, the Caller List is empty. Press or to return to the standby mode
- If more than one call is received from the same caller, the date and time of the most recent call will be recorded. If the same caller calls again, the call entry with "✓" will be deleted
- If you do not press any buttons for 60 seconds, the unit will return to the standby mode

► Using the Caller List

Ex. When you search from the most recent call:

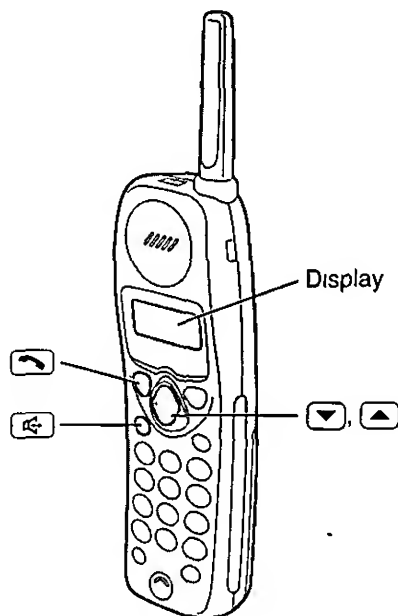


Display meaning

- ✓ You have checked this caller information, answered the call or called back the caller
- ×2-×9 The number of times the same caller called (up to 9)
After checking, "×2"- "×9" will be replaced with "✓"



Calling Back from the Caller List



- 1 Lift the handset off the base unit and press or to enter the Caller List

3 new calls
 =Directory

- 2 Press or repeatedly to find the desired caller

TURNER, CINDY
1-234-456-7890
11 20A JAN12 x3

- 3 Press or
•The displayed phone number is dialed automatically

Talk
12344567890

- In some cases, you may have to edit the number before dialing (p 38)
(Ex You may have to delete "1" and the area code)
- If a phone number is not displayed in the caller information, you cannot call back that caller

► Using the Caller List

Editing the Caller's Phone Number

The unit can edit a phone number into one of 4 patterns

Make sure the unit is in the standby mode.

1 Lift the handset off the base unit and press ▼ or ▲ to enter the Caller List

5 new calls
▼▲ ▶=Directory

2 Press ▼ or ▲ repeatedly to find the desired caller, and press **EDIT** (▶)

PARKER, FRED
1-234-321-5555
11 20A JAN12 ✓

▶Edit
Save directory
▼▲ ▶=Yes

3 While the arrow points to "Edit", press **EDIT** (▶) (Yes key)

PARKER, FRED
1-234-321-5555
▼=Next ▶=Edit

4 Press **EDIT** (▶) (Edit-key) to select a pattern

- Each time you press **EDIT** (▶), the number is rearranged into one of 4 different patterns

(a) Phone no

(b) Area code - Phone no

(c) 1 - Phone no

(d) 1 - Area code - Phone no

- The order in which patterns (a)-(d) are displayed depends on how the telephone number is displayed in step 2

(a) PARKER, FRED
321-5555
▼=Next ▶=Edit

(b) PARKER, FRED
234-321-5555
▼=Next ▶=Edit

(c) PARKER, FRED
1-321-5555
▼=Next ▶=Edit

(d) PARKER, FRED
1-234-321-5555
▼=Next ▶=Edit

5 After editing the number, you can continue with calling back or storing procedures

To call back, press ◀ or ⏪ (p 37)

To store the number in the directory, press ▼ (Next key) Follow the instructions on the display (p 39)

PARKER, FRED
321-5555
▲=Edit ▶=Save

- The number edited in step 4 will not be maintained in the Caller List



Storing Caller List Information in the Directory

You can store numbers that are in the Caller List in the directory

Make sure the unit is in the standby mode.

- 1 Lift the handset off the base unit and press or to enter the Caller List

10 new calls
▼▲ ▶=Directory

- 2 Press or repeatedly to find the caller you want to store in the directory
Press **EDIT**
 •If the number requires editing, see page 38

TURNER, CINDY
1-234-456-7890
11 20A JAN12 x3

▶Edit
Save directory
▼▲ ▶=Yes

- 3 Press or to select "Save directory", and press **EDIT** (Yes key)

Edit
▶Save directory
▼▲ ▶=Yes

If there is no name information for the caller, "Enter name" will be displayed.

Enter name

◀▶ ▼=Next

- a) If a name is not required, press (Next key) and **EDIT** (Save key)
- b) If a name is required, enter the name (p 43) When finished, press (Next key) and **EDIT** (Save key)

Enter name
CINDY TURNER
◀▶ ▼=Next

- A beep sounds
- The display will return to step 2 You can continue storing other items
To return to the standby mode, press **OFF**

CINDY TURNER
12344567890
▲=Edit ▶=Save



- You can exit the programming mode any time by pressing **OFF**
- If the display shows "Directory full" in step 3, the display will return to step 2 Press **OFF** to exit the list To erase other stored items from the directory, see page 48
- You cannot store caller information in the directory if a phone number is not displayed
- If the display shows "Save error" or "No link to base Place on cradle and try again" in step 3, the item cannot be stored in the directory Try again from step 1

► Using the Caller List



Erasing Caller List Information

After checking the Caller List, you can erase some or all of the entries
Make sure the unit is in the standby mode

To erase a specific caller from the Caller List

- 1 Lift the handset off the base unit and press  or  to enter the Caller List

10 new calls
▼▲ ▶=Directory

- 2 Press  or  repeatedly to find the caller you want to erase from the Caller List



REAGAN, TOM
1-888-777-6666
12 20A JAN12 ✓

- 3 Press **HOLD/INTERCOM/CLEAR**
- A beep sounds and the information is erased
 - To erase other items, repeat from step 2
 - To return to the standby mode, press **OFF**

Clear

To erase all entries in the Caller List



Before erasing all entries, make sure that "0 new call" is displayed

- 1 Lift the handset off the base unit and press  or  to enter the Caller List


0 new call
▼▲ ▶=Directory

- 2 Press **HOLD/INTERCOM/CLEAR**

▶Exit
All clear
▼▲ ▶=Yes

- 3 Press  or  to select "All clear"

Exit
▶All clear
▼▲ ▶=Yes

- 4 Press **EDIT**  (Yes key) or **HOLD/INTERCOM/CLEAR**
- A beep sounds and all entries are erased
 - The handset will return to the standby mode

All clear

Using the Directory

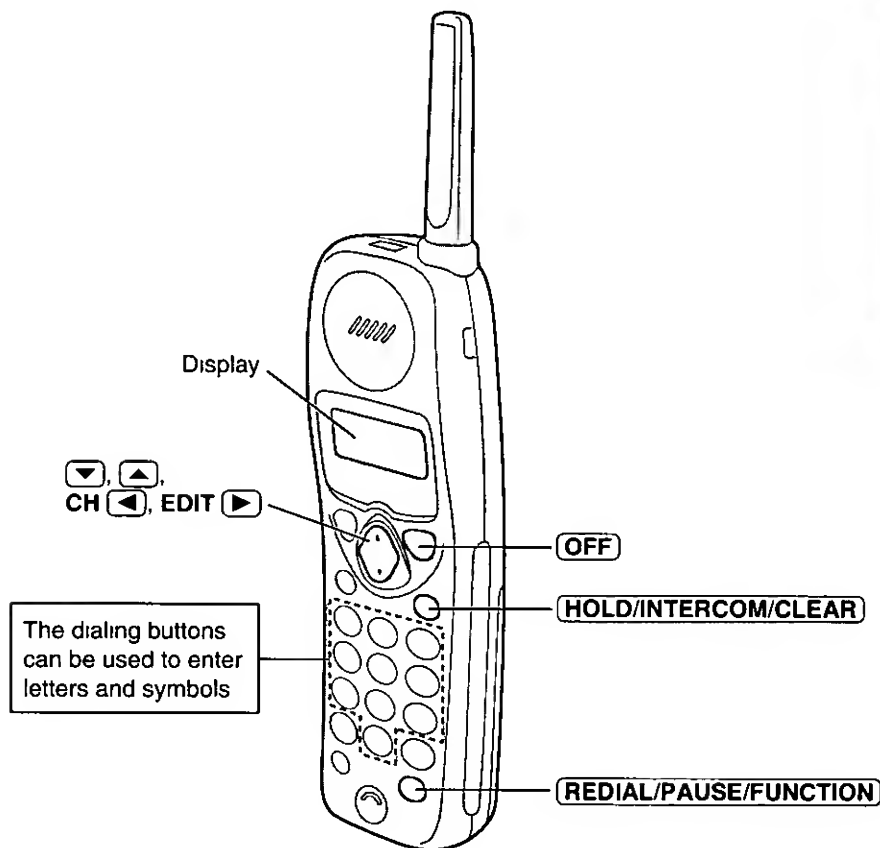


You can store up to 50 names and phone numbers in the directory
All directory items are sorted by the first word in alphabetical order
Using the directory, you can make a call by selecting a name on the handset display

Storing Names and Numbers in the Directory

Make sure the unit is in the standby mode.

Cordless Telephone




(continued ➡)

► Using the Directory

1 Press **REDIAL/PAUSE/FUNCTION**


Program
► Save directory
Ringer volume

2 While the arrow points to "Save directory", press **EDIT** 
 ■ The display shows the number of stored items in the directory

Directory=
20 items

3 Enter a name, up to 15 characters, with the dialing buttons, **CH**  or **EDIT** 

■ See the steps for entering names and symbols (p 43)

■ If a name is not required, press  (Next key) and go to step 5

Enter name
□
◀ ▼=Next

Enter name
Tom Jones
◀ ▼=Next

4 Press  (Next key)

Enter phone no

5 Enter a phone number, up to 22 digits

■ Each time you press **HOLD/INTERCOM/CLEAR**, a character is erased from the right. To erase all of the digits, press and hold **HOLD/INTERCOM/CLEAR**

0987654321□
◀ ▼=Next

6 Press  (Next key)

Tom Jones
0987654321
▲=Edit ▶=Save

7 Press **EDIT**  (Save key)

■ A beep sounds

■ To continue storing other items, repeat from step 2

■ To return to the standby mode, press **OFF**

■ If a pause is required for dialing, **REDIAL/PAUSE/FUNCTION** can be stored in a phone number counting as one digit (p 51) in step 5

■ You can exit the programming mode any time by pressing **OFF**

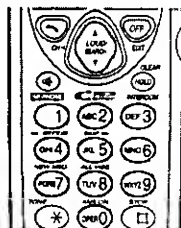
■ If the display shows "Directory full" in step 2, the display will return to step 1. Press **OFF** to exit the list. To erase other stored items from the directory, see page 48

■ If the display shows "Save error" in step 7, the item cannot be stored in the directory. Try again from step 1



Steps for Entering Names and Symbols

The handset dialing buttons (0 to 9), CH ◀ and EDIT ▶ can be used to enter letters and symbols. Each button selects a character as shown below.



	Number of times key is pressed										
Keys	1	2	3	4	5	6	7	8	9	10	11
1	#	&	'	()	*	,	-		/	1
2	A	B	C	a	b	c	2				
3	D	E	F	d	e	f	3				
4	G	H	I	g	h	i	4				
5	J	K	L	j	k	l	5				
6	M	N	O	m	n	o	6				
7	P	Q	R	S	p	q	r	s	7		
8	T	U	V	t	u	v	8				
9	W	X	Y	Z	w	x	y	z	9		
0	0	Blank									
CH ◀	To move the cursor to the left										
EDIT ▶	To move the cursor to the right										

- To enter another character using the same dialing button, press EDIT ▶ to move the cursor to the next space.






If you make a mistake while entering a name

Use CH ◀ or EDIT ▶ to move the cursor to the incorrect character, press **(HOLD/INTERCOM/CLEAR)** to delete and enter the correct character. Each time you press **(HOLD/INTERCOM/CLEAR)**, a character is erased from the right.


To erase all characters, press and hold **(HOLD/INTERCOM/CLEAR)**.

► Using the Directory

For example, to enter "Tom Jones":

- 1 Press **REDIAL/PAUSE/FUNCTION**.
- 2 While the arrow points to "Save directory", press **EDIT** .
- 3 Press **8**.
- 4 Press **6** six times, then press **EDIT**  to move the cursor to the right.
- 5 Press **6** four times.
- 6 Press **EDIT**  twice to enter a blank.
- 7 Press **5**.
- 8 Press **6** six times, then press **EDIT**  to move the cursor to the right.
- 9 Press **6** five times.
- 10 Press **3** five times.
- 11 Press **7** eight times.
- 12 When finished, press  (Next key).
 - Follow steps 5 to 7 on page 42 to complete the operation.

Directory=
20 items

Enter name

◀ ▼=Next

8

To

Tom

Tom

Tom

Tom Jo

Tom Jon

Tom Jones

Enter name
Tom Jones
◀ ▼=Next

Enter phone no.

•While entering names, the cursor will flash on the display.



Finding Items in the Directory

Make sure the unit is in the standby mode

- 1 Press **CH** (▼) or **EDIT** (▲) to enter the directory list

Directory list
▼▲
▶=Caller's list

- In step 1, you can go to the Caller List by pressing **EDIT** (▲) (p 35)

- 2 Press (▼) or (▲)
- The first item is displayed

Ann
1234567890

- 3 Press (▼) or (▲) repeatedly until the desired item is displayed

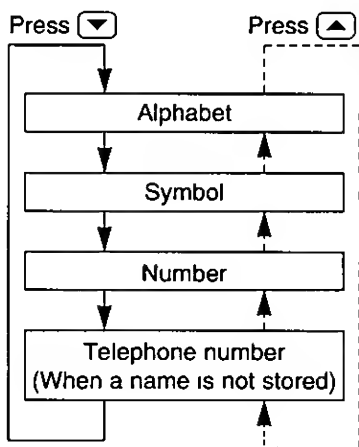
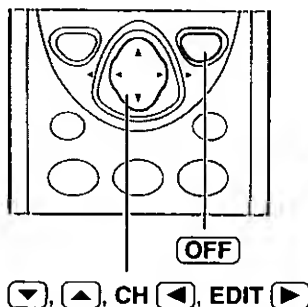
- All directory items are stored in the order shown on the right

To search for a name by the initial

- 1 Press the dialing button for the first letter of the desired name until any name with the same initial is displayed (see the Index table on page 46)

Ex To find "Frank", press **(3)** repeatedly until the first item under "F" is displayed

- 2 Press (▼) until the name is displayed











- You can exit the directory list any time by pressing **(OFF)**
- If "No items stored" is displayed in step 2, the directory is empty To return to the standby mode, press **(OFF)**

► Using the Directory

Index table

Keys	Index	Keys	Index
1	Other symbols, 1	6	M, N, O, 6
2	A, B, C, 2	7	P, Q, R, S, 7
3	D, E, F, 3	8	T, U, V, 8
4	G, H, I, 4	9	W, X, Y, Z, 9
5	J, K, L, 5	0	0

Dialing from the Directory

- 1 Press **CH**  or **EDIT**  to enter the directory list.
- 2 Press  or .
 - The first item is displayed.
- 3 Press  or  repeatedly to find the directory item that you want to dial.
 - To search for the item by initial, see page 45.
- 4 Press  or .
 - The number is dialed automatically.
- 5 To hang up, press **OFF** or place the handset on the base unit.

Frank
4567890

Talk
4567890

- You can exit the directory list any time by pressing **OFF**.



Editing an Item in the Directory

Make sure the unit is in the standby mode.

- 1 Press **CH** (◀) or **EDIT** (▶) to enter the directory list.
- 2 Press (▼) or (▲).
 - The first item is displayed.
- 3 Press (▼) or (▲) repeatedly to find the directory item you want to change, and press **EDIT** (▶).
 - To search for the item by initial, see page 45.
 - If you do not need to change the name, go to step 5.
- 4 Edit the name using the dialing buttons, **CH** (◀) or **EDIT** (▶) (p. 43), up to 15 characters.
- 5 Press (▼) (Next key).
- 6 Add a number to the current number.
 - If you do not need to change the number, press (▼) (Next key) and go to step 8.
 - Each time you press **HOLD/INTERCOM/CLEAR**, a character is erased from the right. To erase all of the digits, press and hold **HOLD/INTERCOM/CLEAR**.
- 7 Press (▼) (Next key).
- 8 When finished, press **EDIT** (▶) (Save key).
 - To continue editing other items, repeat steps 3 through 8.
 - To return to the standby mode, press **OFF**.

Jane
1234567

Enter name
Jane
◀ ▼=Next

Enter name
Jane Walker
◀ ▼=Next

1234567
◀ ▼=Next

0981234567
◀ ▼=Next

Jane Walker
0981234567
▲=Edit ▶=Save

Jane Walker
0981234567

•You can exit the directory list any time by pressing **OFF**.

► Using the Directory

Erasing an Item from the Directory

Make sure the unit is in the standby mode

- 1 Press **CH** (◀) or **EDIT** (▶) to enter the directory list
- 2 Press (▼) or (▲)
 - The first item is displayed
- 3 Press (▼) or (▲) repeatedly to find the directory item you want to erase
 - To search for the item by initial, see page 45

Helen
1234567890

- 4 Press **HOLD/INTERCOM/CLEAR**
 - To stop erasing, press **CH** (◀) (No key)

Clear?
◀=No ▶=Yes

- 5 Press **EDIT** (▶) (Yes key) or **HOLD/INTERCOM/CLEAR**
 - A beep sounds
 - To erase other items, repeat from step 3
 - To return to the standby mode, press **OFF**

Clear

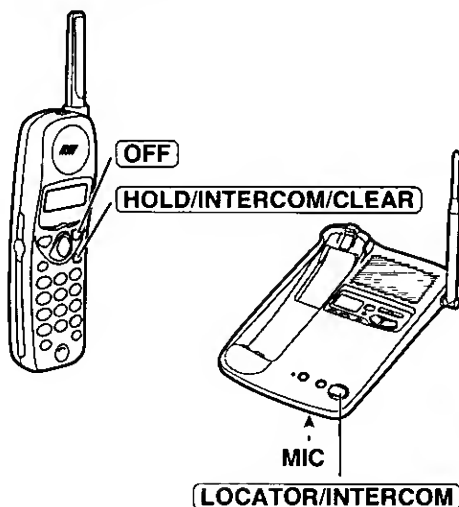
- You can exit the directory list any time by pressing **OFF**

Intercom

A 2-way intercom is possible between the handset and the base unit

Paging the base unit from the handset

- 1 Handset
Press **HOLD/INTERCOM/CLEAR**
Talk to the paged party after the beeps
• "Intercom" is displayed



- 2 Base unit
When the other party's voice is heard, answer using the **MIC**

- 3 Handset
To end the intercom, press **OFF**

Paging the handset from the base unit (Handset locator)

Using this feature, you can locate a misplaced handset

- 1 Base unit
Press **LOCATOR/INTERCOM**
• The handset beeps for 1 minute and displays "Paging Press INTERCOM"
• To stop paging, press **LOCATOR/INTERCOM** again

- 2 Handset
Press **HOLD/INTERCOM/CLEAR** to answer
• "Intercom" is displayed

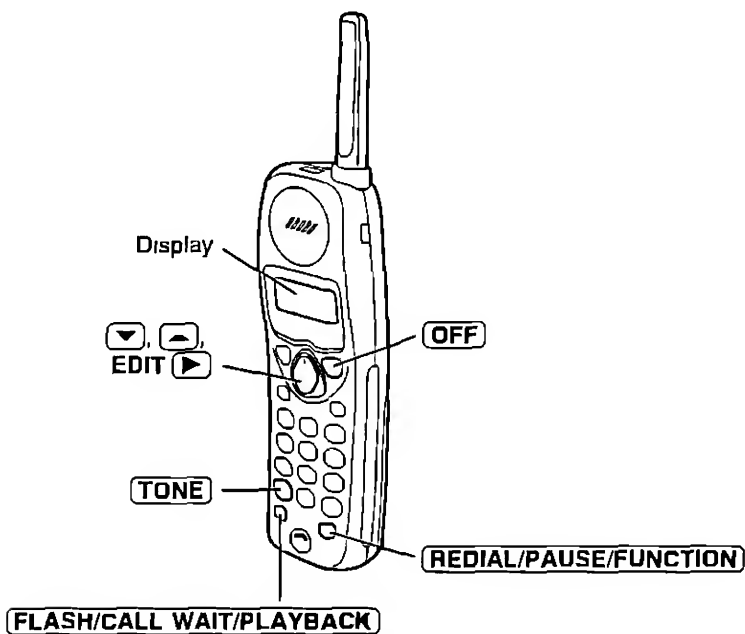
- 3 Base unit
Talk into the **MIC**

- 4 Handset
To end the intercom, press **OFF**

During an intercom call:

- Intercom calls can only be ended with the handset
- If the handset user has difficulty hearing the base unit user, decrease the base unit speaker volume by pressing **VOLUME**
- If an incoming call is received, the intercom call stops and the unit starts to ring To answer, press or

Special Features



Automatic Security Code Setting

Each time you place the handset on the base unit, the unit automatically selects one of more than a million security codes. These codes help prevent the unauthorized use of your telephone line by another cordless telephone user.

Temporary Tone Dialing (For Rotary or Pulse Service Users)

Press **TONE** before entering access numbers which require tone dialing.

- The dialing mode changes to tone. You can enter numbers to access an answering service, electronic banking service, etc. When you hang up, the mode will return to pulse.
- Access numbers entered after pressing **TONE** will not be included when redialing.



For Call Waiting Service Users

Press **FLASH/CALL WAIT/PLAYBACK** if you hear a call-waiting tone while talking

- The first call is put on hold and you can answer the second call
- To return to the first caller, press **FLASH/CALL WAIT/PLAYBACK** again
- The call waiting service cannot be used when
 - the answering system is recording someone's message, or
 - a parallel connected telephone is in use
- If this function does not operate properly, consult your telephone company for details

Call Waiting Caller ID Feature

Call Waiting Caller ID Feature allows your unit to display the second caller's information. After you hear a call-waiting tone while talking, the unit will display the caller's name with the phone number and "----Waiting----

BROWN, NANCY
1-000-222-3333
----Waiting----

- Please contact your telephone company for details and availability in your area

How to Use the PAUSE Button (For Analog PBX Line/Long Distance Service Users)

We recommend you press **REDIAL/PAUSE/FUNCTION** if a pause is required for dialing with a PBX or to access a long distance service

Ex Line access number **9** (PBX)

9 → **REDIAL/PAUSE/FUNCTION** → Phone number

- Pressing **REDIAL/PAUSE/FUNCTION** once creates a 3 5 second pause. This prevents misdialing when you redial or dial a stored number
- Pressing **REDIAL/PAUSE/FUNCTION** more than once increases the length of the pause between numbers

► Special Features

FLASH Button

Pressing **FLASH/CALL WAIT/PLAYBACK** allows you to use special features of your host PBX such as transferring an extension call or accessing special telephone services (optional) such as call waiting



Selecting the flash time

The flash time depends on your telephone exchange or host PBX

You can select the following flash times "700, 600, 400, 300, 250, 110, 100 or 90 ms (milliseconds)" Your phone comes from the factory set to "700 ms"



Make sure the unit is in the standby mode

1 Press **REDIAL/PAUSE/FUNCTION**

2 Press  or  repeatedly until the arrow points to "Program"

Ringer volume
►Program
Save directory


3 Press **EDIT** 

4 Press  or  repeatedly until the arrow points to "Set flash time"

LCD contrast
►Set flash time
Set line mode

5 Press **EDIT** 

Flash time
700ms
▼▲ ►=Save

6 Press  or  repeatedly until the desired time is displayed

7 Press **EDIT**  (Save key)

•A beep sounds

•To return to the standby mode, press **OFF**

Flash time
110ms

•You can exit the programming mode any time by pressing **OFF**

•If you are connected via a PBX, a longer flash time may be necessary to use PBX functions (transferring a call etc) Consult your PBX supplier for the correct setting

Automatic Answering Operation

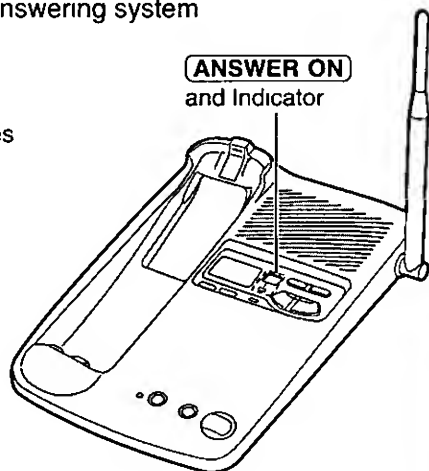
When the unit answers a call, a greeting message is played and the caller's message is recorded

- The total recording time (including greeting message) is **about 15 minutes**. If messages are recorded in noisy rooms, the time may be shortened by up to 3 minutes
- A maximum of 64 messages (including greeting message) can be recorded

Setting the Unit to Answer Calls



Press **ANSWER ON** to turn on the answering system

- The indicator lights and "Answer set" is heard
- The unit will announce the remaining recording time if it is less than 5 minutes
- If you hear "Memory full", "**FULL**" is displayed on the base unit and the ANSWER ON indicator flashes rapidly, erase some, or all, of the messages (p 57)



- If you do not want the unit to answer calls, press **ANSWER ON** again to turn off the answering system. The indicator light goes out and "Answer off" is heard
- You can also turn on the answering system remotely using any other phone (p 63)

Monitoring incoming calls

While a call is being recorded, you can monitor it through the speaker. To answer the call with the handset, press  or . The unit stops recording

Listening to Messages

You can see the total number of recorded messages on the base unit display. If the ANSWER ON indicator flashes, new messages have been recorded.

Listening to only new messages

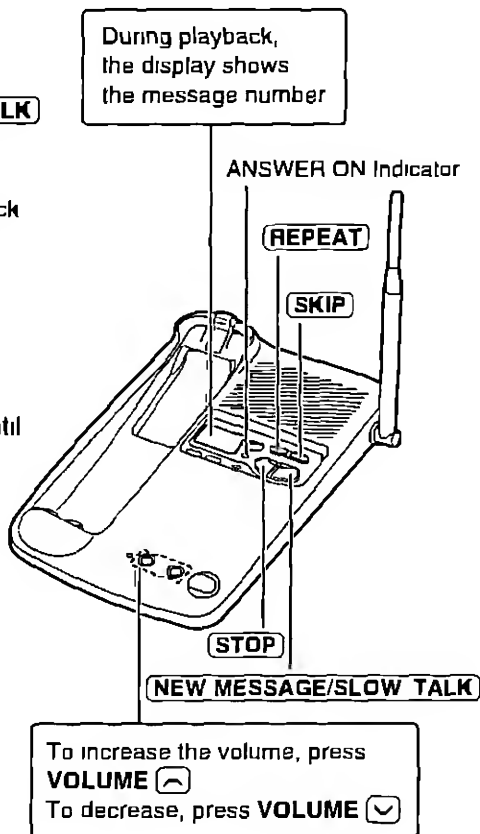
Press **NEW MESSAGE/SLOW TALK** briefly

- The unit announces the number of new messages and plays them back.

Listening to all recorded messages

Press and hold **NEW MESSAGE/SLOW TALK** until playback starts.

- At the end of the last message, "End of final message" is heard. The unit will announce the remaining recording time if it is less than 5 minutes.



Slow Talk Message Playback

For easier listening of recorded messages, you can slow down the playback speed by pressing **NEW MESSAGE/SLOW TALK** during playback. Each time you press the button, the playback speed will change to slow/normal.

Press **NEW MESSAGE/SLOW TALK** during playback.

- The playback speed will slow down by 30%.
- To return to the normal speed, press **NEW MESSAGE/SLOW TALK** again during playback.
- The playback speed will return to normal after playing back all messages.





During playback

To repeat message	Press REPEAT briefly <ul style="list-style-type: none">•If you press within 5 seconds of playback, the previous message will be played
To skip message	Press SKIP briefly
To stop operation	Press STOP <ul style="list-style-type: none">•To resume playback, press NEW MESSAGE/SLOW TALK•If you do not press any button for 60 seconds or if you press STOP again, the unit will return to the standby mode

For Caller ID service users (p 33)

- During playback, when the handset is on the base unit, the handset display will show the name and/or number of the caller whose message is being played

To call back the displayed number.

During playback, lift the handset and press  or  within 10 seconds

—The unit stops playback and automatically dials the displayed phone number

- After listening to new incoming messages, “√” will be added to the call entries in the Caller ID Caller List (p 36)

► Listening to Messages

From the Handset

If someone else is in the room and you want to listen to the recorded messages privately, you can use the handset

1 Handset

Press **FLASH/CALL WAIT/PLAYBACK**

- The number of new messages is heard on the handset

2 Base unit

To listen to new messages, press

NEW MESSAGE/SLOW TALK

briefly To listen to all messages, press and hold

NEW MESSAGE/SLOW TALK until playback starts

- The messages will be heard on the handset

■ **NEW MESSAGE/SLOW TALK**,

REPEAT, **SKIP** and **STOP**

can also be used during playback

(p 54, 55)



3 When finished, press

FLASH/CALL WAIT/PLAYBACK

or place the handset on the base unit

- You can also listen to messages without using the base unit See page 64

Erasing Messages

The unit will announce the remaining recording time after playback, if it is less than 5 minutes. New messages cannot be recorded when

- “Memory full” is heard
- “**FULL**” is displayed on the base unit
- the ANSWER ON indicator flashes rapidly

Erase some, or all, of the messages. We recommend you erase unnecessary messages after each playback.

Erasing a specific message

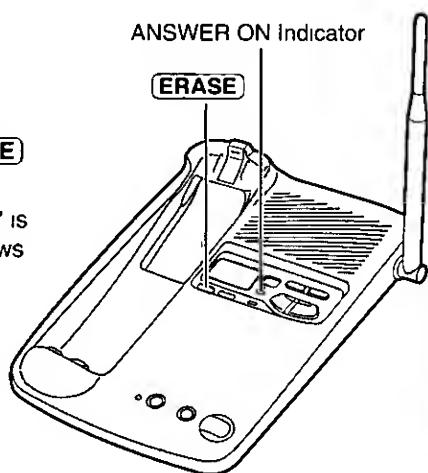
Press **ERASE** while the message you want to erase is being played.

- The unit erases the message
- A short beep will sound and the unit will continue to play the next message

Erasing all messages

All recorded messages, except the greeting message, can be erased at one time.

- 1 Press **ERASE**
 - “Press ERASE again to erase all messages” is heard
- 2 Within 5 seconds, press **ERASE** again
 - A beep sounds and “No messages” is heard. The base unit display shows “0”

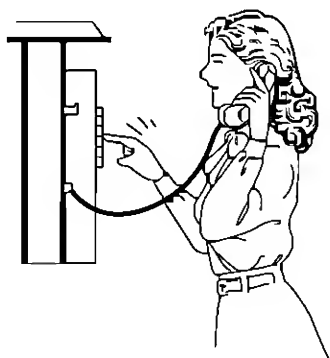


- The information in the Caller List will not be erased. To erase Caller List information, see page 40

Remote Operation from a Touch Tone Phone

You can operate the answering system from any touch tone phone. A synthesized voice menu will guide you on how to operate the unit (p. 60).

- To skip the voice menu and operate the unit directly, see page 62.



Summary of remote operation

Call your unit from a touch tone phone



Enter your remote code (p. 59) during or after the greeting message

- The number of new messages is heard



After 3 seconds, the voice menu will start (p. 60)

Follow the menu or enter the direct commands (p. 62)



To end remote operation, hang up

- The messages are saved

- The unit will announce the remaining recording time after playback, if it is less than 5 minutes



Setting the Remote Code

The remote code prevents unauthorized people from accessing your unit and listening to your messages. Choose any **2-digit number (00–99)**.

The factory preset remote code is "11". If you do not program your own remote code, you can use "11".

Make sure that the unit is in the standby mode.

- 1 Press **REDIAL/PAUSE/FUNCTION**
- 2 Press **▼** or **▲** repeatedly until the arrow points to "Program"
- 3 Press **EDIT** **▶**
- 4 Press **▼** or **▲** repeatedly until the arrow points to "TAD program"
- 5 Press **EDIT** **▶**
- 6 Press **▼** or **▲** repeatedly until the arrow points to "Remote code"
- 7 Press **EDIT** **▶**
- 8 Enter a remote code using a **2-digit number (00–99)**
- 9 Press **EDIT** **▶** (Save key)
 - A beep sounds
 - To return to the standby mode, press **OFF**

Ringer volume
▶ Program
Save directory

TAD program
▶ LCD contrast
Set flash time

Talk switching
▶ TAD program
LCD contrast

Recording time
▶ Day and time
Remote code

Day and time
▶ Remote code
Number of ring

Remote code
11
▶ = Save

Remote code
35

To check the remote code

Repeat steps 1 to 7

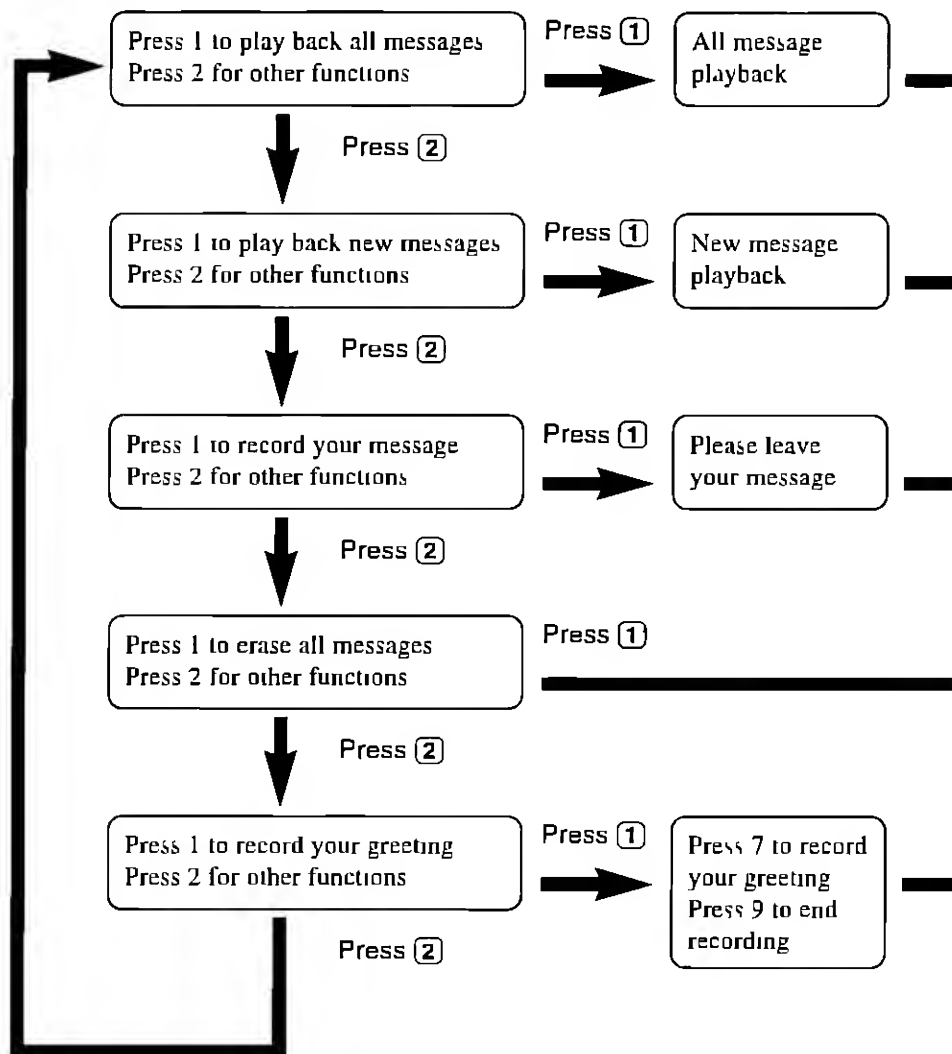
- The current remote code is displayed on the base unit. When finished, press

OFF

► Remote Operation from a Touch Tone Phone

Voice Menu

The shaded boxes are voice prompts





All Message Playback

All recorded messages are played back. At the end of the last message, "End of final message" is heard. The unit will announce the remaining recording time if it is less than 5 minutes.

New Message Playback

Only new messages are played back. At the end of the last message, "End of final message" is heard. The unit will announce the remaining recording time if it is less than 5 minutes.

Recording a Memo Message

You can leave a personal message.

- 1 Talk after you hear "Please leave your message"
- 2 When you finish recording, hang up

Erasing All Messages

All recorded messages (except greeting message) are erased.

Recording a Greeting Message

You can re-record your greeting message.

- 1 Press **[7]**
You will hear a voice prompt followed by a long beep
- 2 After the beep, talk for up to 2 minutes
- 3 When you finish recording, press **[9]**
- 4 Your greeting will be played back for confirmation

- 3 seconds after playback, the voice menu will start again from the beginning
- If you hear "Memory full" after playback, erase some, or all, of the messages (p. 63)

► Remote Operation from a Touch Tone Phone

Direct Remote Operation

Once you have entered the remote code, you can also control your unit by direct commands instead of using the voice menu. To end the remote operation, hang up anytime.

Direct commands

NEW MESSAGE PLAYBACK	4	▪ Only new messages are played back
-------------------------	----------	-------------------------------------

ALL MESSAGE PLAYBACK	5	▪ All messages are played back
-------------------------	----------	--------------------------------

REPEAT (During playback)	1	▪ The current message is repeated
-----------------------------	----------	-----------------------------------

SKIP (During playback)	2	▪ The current message is skipped The next message is played
---------------------------	----------	--

CHANGING PLAYBACK SPEED (During playback)	3	▪ Each time you press the button, the playback speed will change to slow/normal
--	----------	---

STOP	9	▪ Operation is stopped temporarily ▪ To resume operation, enter a direct command within 15 seconds, or the voice menu will start
------	----------	---

GREETING MESSAGE RECORDING	7	▪ A long beep sounds
	↓	
	RECORD	▪ After the beep, talk immediately for up to 2 minutes
	↓	
	9	▪ The recording is stopped ▪ The recorded message is played

**ERASING A
SPECIFIC
MESSAGE**
(During playback)

*** 4**

- The current message is erased
- A short beep will sound and the next message will be played

**ERASING ALL
MESSAGES**

*** 5**

- All recorded messages are erased
- A long beep sounds and "No messages" is heard

**ANSWERING
SYSTEM OFF**

0

- The unit hangs up and will not answer calls until turned on again
-

Turning on the answering system

Call your unit and wait for 15 rings

- The unit will answer and the greeting message will be played
- The answering system will turn on Hang up or enter the remote code for other options
- When turning on the answering system using a rotary or pulse service telephone, you cannot enter the remote code for other options

Skipping the greeting message

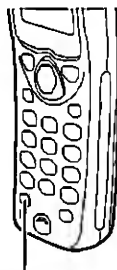
After calling your unit, press ***** during the greeting message

- The unit skips the rest of the greeting message and you can start recording your message after the long beep

Remote Operation with the Handset

You can operate your answering system with the handset

The announcements and recorded messages can only be heard with the handset



FLASH/CALL WAIT/PLAYBACK

Summary of remote operation

Press **FLASH/CALL WAIT/PLAYBACK**

- The number of new messages is heard
- "Remote operation" is displayed on the handset





Enter the desired direct commands (p 65)

- If you do not enter a command, the voice menu will start (see below)
- After the voice menu, all message playback will start



To end remote operation, press **FLASH/CALL WAIT/PLAYBACK**

- The messages are saved

- The unit will announce the remaining recording time after playback, if it is less than 5 minutes
- If the unit starts to ring during the remote operation, press  or  to answer the call. The remote operation is ended
- If you hear "Memory full" after playback, erase some, or all, of the messages (p 65)

Voice menu

If no commands are entered after you press

FLASH/CALL WAIT/PLAYBACK, the unit will start the following voice menu

"Press 4 to play back new messages. Press 5 to play back all messages."

- You can enter direct commands even if the voice menu has started

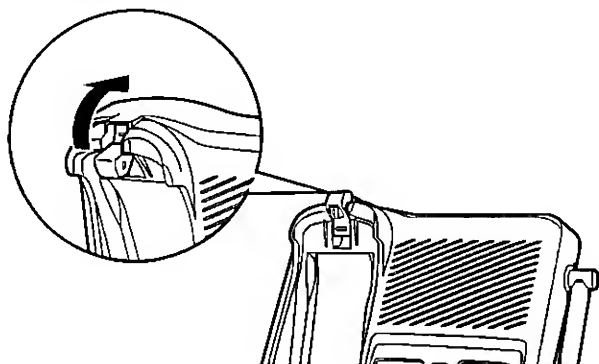
Direct commands

NEW MESSAGE PLAYBACK	4	<ul style="list-style-type: none"> • Only new messages are played back
ALL MESSAGE PLAYBACK	5	<ul style="list-style-type: none"> • All messages are played back
REPEAT (During playback)	1	<ul style="list-style-type: none"> • The current message is repeated
SKIP (During playback)	2	<ul style="list-style-type: none"> • The current message is skipped The next message is played
CHANGING PLAYBACK SPEED (During playback)	3	<ul style="list-style-type: none"> • Each time you press the button, the playback speed will change to slow/normal
STOP	9	<ul style="list-style-type: none"> • Operation is stopped temporarily • To resume operation, enter a direct command within 15 seconds, or the voice menu will start (p 64)
ERASING A SPECIFIC MESSAGE (During playback)	* 4	<ul style="list-style-type: none"> • The current message is erased • A short beep will sound and the next message will be played
ERASING ALL MESSAGES	* 5	<ul style="list-style-type: none"> • All recorded messages are erased • A long beep sounds and "No messages" is heard
ANSWERING SYSTEM OFF	0	<ul style="list-style-type: none"> • "Answer off" is heard and the answering system is turned off
ANSWERING SYSTEM ON	8	<ul style="list-style-type: none"> • "Answer set" is heard and the answering system is turned on

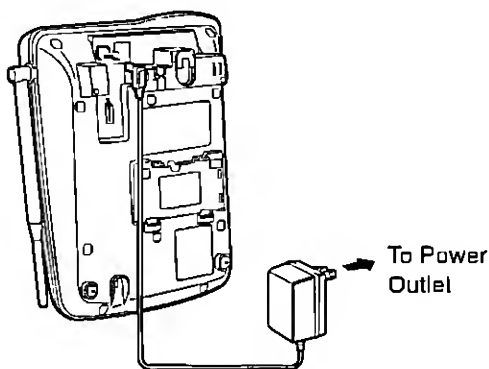
Wall Mounting

This unit can be mounted on a wall phone plate

- 1 Push the hook and turn it around
Turn the hook until a click is heard

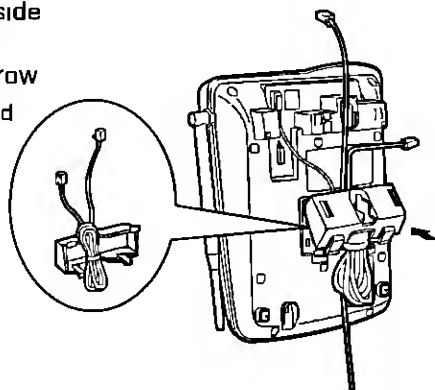


- 2 Connect the AC adaptor



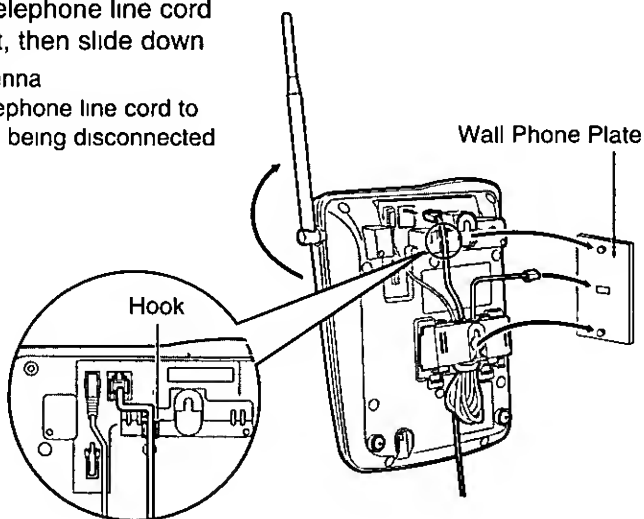
- 3 Tuck the telephone line cord inside the wall mounting adaptor, then push it in the direction of the arrow

■ The word "UP" should face upward



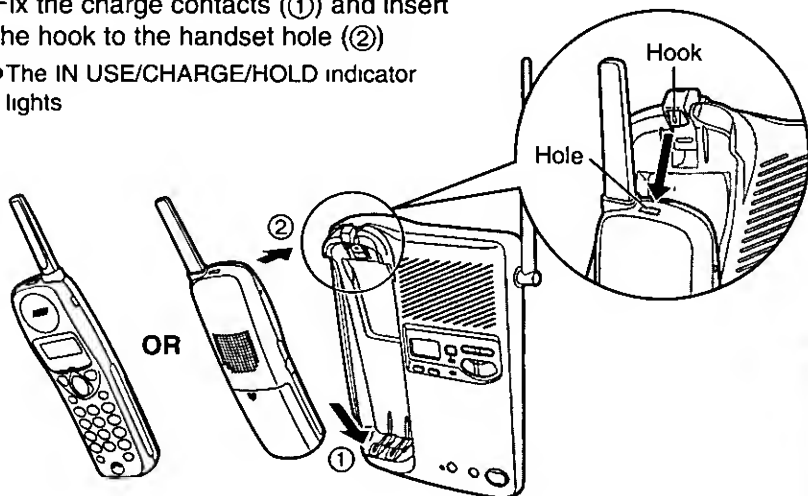
4 Connect the telephone line cord Mount the unit, then slide down

- Raise the antenna
- Fasten the telephone line cord to prevent it from being disconnected



5 To charge the battery. Fix the charge contacts (①) and insert the hook to the handset hole (②)

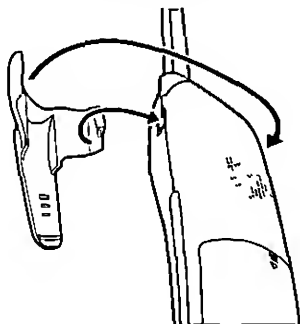
- The IN USE/CHARGE/HOLD indicator lights



Using the Belt Clip

You can hang the handset on your belt or pocket using the belt clip

To attach the belt clip



To remove the belt clip

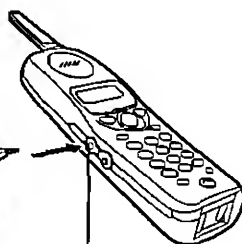
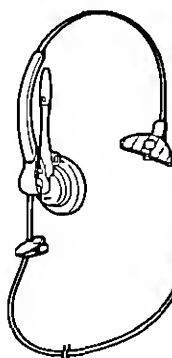


Using an Optional Headset

Plugging an optional headset into the handset allows a hands-free phone conversation. Please use only a Panasonic KX-TCA87 or KX-TCA90 headset. To order, call the accessories telephone number on page 2.

Connecting an optional headset to the handset

Open the headset jack cover, and connect an optional headset to the headset jack as shown below.



The illustration headset is a KX-TCA90

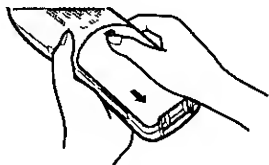
Headset Jack

When an optional headset is connected to the handset, make sure to use the headset to talk with the caller. If you want to have a normal cordless phone conversation, disconnect the headset.

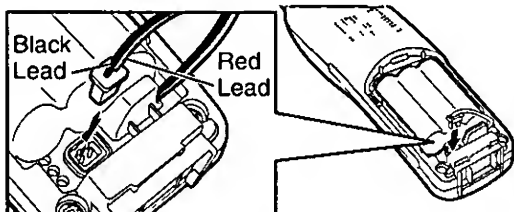
Battery Replacement

If "Recharge" is displayed and/or "[■]" flashes after being fully charged, replace the battery with a new Panasonic P-P504 battery. To order, call the accessories telephone number on page 2.

- 1** Press the notch on the battery cover firmly and slide it as indicated by the arrow.



- 2** Remove the old battery. Then install the new one.
- Insert the battery plug into the connector as shown in the picture.



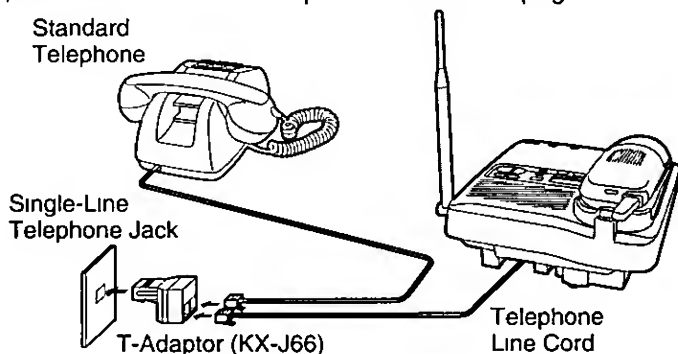
- 3** Close the cover. Make sure you charge the new battery for about 15 hours in order to display the battery strength prompt correctly (p. 13).

A nickel cadmium battery that is recyclable powers the product you have purchased. At the end of its useful life, under various state and local laws, it is illegal to dispose of this battery into your municipal waste stream. Please call 1-800-8-BATTERY for information on how to recycle this battery.



Adding Another Phone

This unit will not function during a power failure. To connect a standard telephone on the same line, use the Panasonic T-adaptor KX-J66. To order, call the accessories telephone number on page 2.





Before Requesting Help



Cordless Telephone

Problem	Cause and Remedy
"No link to base Place on cradle and try again " is displayed and an alarm tone sounds	<ul style="list-style-type: none">■ You are too far from the base unit Move closer and try again■ Place the handset on the base unit and try again■ Plug in the AC adaptor■ Raise the base unit antenna
Static, sound cuts in/out, fades Interference from other electrical units	<ul style="list-style-type: none">■ Locate the handset and the base unit away from other electrical appliances (p 3)■ Move closer to the base unit■ Raise the base unit antenna■ Press CH ◀ to select a clearer channel in the talk, speakerphone, intercom or remote operation mode
The handset does not ring	<ul style="list-style-type: none">■ The ringer volume is set to OFF Set to HIGH or LOW (p 19)
The handset display is blank	<ul style="list-style-type: none">■ The handset is in the standby mode (p 14) Press ▼, ▲, CH ◀ or EDIT ▶ to turn the display on
The handset display is still blank after pressing ▼, ▲, CH ◀ or EDIT ▶	<ul style="list-style-type: none">■ Charge the battery fully (p 13)
You cannot store a name and phone number in the directory	<ul style="list-style-type: none">■ You cannot store an item in the directory while the unit is in the talk or intercom mode, or while the answering system is in use■ Do not pause for over 60 seconds while storing



Problem	Cause and Remedy
While programming or searching, the unit starts to ring and stops the program/search.	<ul style="list-style-type: none">● To answer the call, press  or .Start again from the beginning after hanging up.
The unit does not display the caller's name and/or phone number.	<ul style="list-style-type: none">● You do not subscribe to a Caller ID service.● Other telephone equipment may be interfering with your phone. Disconnect it and try again.● Other electrical appliances connected to the same outlet may be interfering with the Caller ID information.● Telephone line noise may be affecting the Caller ID information.
The handset display goes to the standby mode while viewing the Caller List.	<ul style="list-style-type: none">● Do not pause for over 60 seconds while searching.
When a second call is received during a conversation, the unit does not display the new caller's name and/or phone number.	<ul style="list-style-type: none">● The line mode selection is incorrect. See page 16.● The caller requested not to send his/her information. See page 34.
LOCATOR/INTERCOM does not function.	<ul style="list-style-type: none">● The handset is too far from the base unit.● The handset is engaged in an outside call or is viewing the Caller List/directory list. Wait until the IN USE/CHARGE/HOLD indicator light goes out.
You cannot redial by pressing REDIAL/PAUSE/FUNCTION .	<ul style="list-style-type: none">● If the last number dialed was more than 32 digits long, the number will not be redialed correctly.● Access numbers entered after pressing STONE will not be included when redialing.







► Before Requesting Help

Problem	Cause and Remedy
You cannot have a conversation using the headset	<ul style="list-style-type: none">When an optional headset is connected (p. 68), you must use the headset to talk with the caller. To have a normal cordless phone conversation, disconnect the headset.
You cannot have a conversation using the headset	<ul style="list-style-type: none">Make sure that an optional headset is connected properly (p. 68). may have been pressed. If "SP-phone" is displayed on the handset, press  to continue the conversation with the headset.

Answering System





Problem	Cause and Remedy
The answering system is on, but incoming messages are not recorded	<ul style="list-style-type: none">The recording time is set to "Greeting only". Select "1 minute" or "3 minutes" (p. 26).Memory is full. Erase some, or all, of the messages (p. 57).
You cannot listen to the recorded messages	<ul style="list-style-type: none">Make sure that the unit is in the standby mode.
"FULL" is displayed and the ANSWER ON indicator flashes rapidly, and no new messages are recorded	<ul style="list-style-type: none">Memory is full. Erase some, or all, of the messages (p. 57).



Problem	Cause and Remedy
You cannot operate the answering system at the base unit.	<ul style="list-style-type: none">• The handset user is operating the answering system, or is engaged in an outside call. Wait until the IN USE/CHARGE/HOLD indicator light goes out.
You cannot operate the answering system from a touch tone phone.	<ul style="list-style-type: none">• Make sure you enter the correct remote code.• The answering system may not respond if the tones are too short to activate the unit. Press each button firmly.• The answering system is off. Turn it on (p. 63).
You cannot operate the answering system with the handset.	<ul style="list-style-type: none">• Someone is operating the answering system.• You are too far from the base unit. Move closer to the base unit.• The unit is recording a message. To answer the call, press  or .
While recording a greeting message, the unit starts to ring and stops recording.	<ul style="list-style-type: none">• To answer the call, press  or . Start again from the beginning after hanging up.
During playback, the unit starts to ring and stops playback.	<ul style="list-style-type: none">• To answer the call, press  or . To resume playback, press NEW MESSAGE/SLOW TALK after hanging up.

► Before Requesting Help

General

Problem	Cause and Remedy
The unit does not work	<ul style="list-style-type: none">■ Check the settings (p 12–16)■ Charge the battery fully (p 13)■ Clean the charge contacts and charge again (p 14)■ Install the battery properly (p 69)■ Place the handset on the base unit and unplug the AC adaptor to reset. Plug in, and try again
You cannot program items, such as the dialing mode	<ul style="list-style-type: none">■ Programming is not possible while the unit is in the talk, speakerphone or intercom mode, when viewing the Caller List/directory list, or while the answering system is in use■ Do not pause for over 60 seconds while programming■ Move closer to the base unit■ , , CH  or EDIT  may have been pressed when you picked up the handset. Press OFF and try again
Previously programmed information is erased	<ul style="list-style-type: none">■ If a power failure occurs, programmed information may be erased. Reprogram if necessary
"Recharge" is displayed, "[■]" flashes or the unit beeps intermittently	<ul style="list-style-type: none">■ Charge the battery fully (p 13)
You charged the battery fully, but "Recharge" is still displayed and/or "[■]" continues to flash	<ul style="list-style-type: none">■ Clean the charge contacts and charge again (p 14)■ Install a new battery (p 69)

Problem	Cause and Remedy
The IN USE/CHARGE/HOLD indicator light does not go out while charging	<ul style="list-style-type: none"> • This is normal
If you cannot solve your problem	<ul style="list-style-type: none"> • Call our customer call center at 1-800-211-PANA(7262) • Panasonic's e-mail address for customer inquiries consumerproducts@panasonic.com for customers in the USA or Puerto Rico ONLY

Important Safety Instructions

When using this unit, basic safety precautions should always be followed to reduce the risk of fire, electric shock, or personal injury.

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on this unit.
3. Unplug this unit from AC outlets before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this unit near water, for example, near a bathtub, washbowl, kitchen sink, or the like.
5. Place this unit securely on a stable surface. Serious damage and/or injury may result if the unit falls.
6. Do not cover slots and openings on the unit. They are provided for ventilation and protection against overheating. Never place the unit near radiators, or in a place where proper ventilation is not provided.
7. Use only the power source marked on the unit. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
8. Do not place objects on the power cord. Install the unit where no one can step or trip on the cord.
9. Do not overload wall outlets and extension cords. This can result in the risk of fire or electric shock.
10. Never push any objects through slots in this unit. This may result in the risk of fire or electric shock. Never spill any liquid on the unit.
11. To reduce the risk of electric shock, do not disassemble this unit. Take the unit to an authorized servicer when service is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the unit is subsequently used.
12. Unplug this unit from the wall outlet and refer servicing to an authorized servicer when the following conditions occur:
 - A. When the power supply cord or plug is damaged or frayed.
 - B. If liquid has been spilled into the unit.
 - C. If the unit has been exposed to rain or water.
 - D. If the unit does not work normally by following the operating instructions. Adjust only controls covered by the operating instructions. Improper adjustment may require extensive work by an authorized servicer.
 - E. If the unit has been dropped or physically damaged.
 - F. If the unit exhibits a distinct change in performance.
13. During thunderstorms, avoid using telephones except cordless types. There may be a remote risk of an electric shock from lightning.
14. Do not use this unit to report a gas leak, when in the vicinity of the leak.

SAVE THESE INSTRUCTIONS

CAUTION:

To reduce the risk of fire or injury to persons, read and follow these instructions

- 1 Use only the battery(ies) specified
- 2 Do not dispose of the battery(ies) in a fire. They may explode. Check with local waste management codes for special disposal instructions
- 3 Do not open or mutilate the battery(ies). Released electrolyte is corrosive and may cause burns or injury to the eyes or skin. The electrolyte may be toxic if swallowed
- 4 Exercise care in handling batteries in order not to short the battery to conductive materials such as rings, bracelets, and keys. The battery and/or conductor may overheat and cause burns
- 5 Charge the battery(ies) provided with or identified for use with this product only in accordance with the instructions and limitations specified in this manual

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR ANY TYPE OF MOISTURE

- The AC adaptor is used as the main disconnect device, ensure that the AC outlet is located/installed near the unit and is easily accessible

FCC and Other Information

If requested by the telephone company, inform them as follows:

FCC Registration No. (found on the bottom of the unit)

Ringer Equivalence 0.1B

The particular telephone line to which the equipment is connected.

This unit must not be connected to a coin operated line.

If you are on a party line, check with your local telephone company.

Ringer Equivalence No. (REN):

The REN is useful in determining the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

In the event terminal equipment causes harm to the telephone network, the telephone company should notify the customer, if possible, that service may be stopped.

However, where prior notice is impractical, the company may temporarily cease service providing that they:

- (a) Promptly notify the customer.
- (b) Give the customer an opportunity to correct the problem with their equipment.
- (c) Inform the customer of the right to bring a complaint to the Federal Communication Commission pursuant to procedures set out in FCC Rules and Regulations Subpart E of Part 68.

The Telephone Company may make changes in its communications facilities, equipment, operations or procedures, where such action is reasonably required in the operation of its business and is not inconsistent with the rules and regulations in FCC Part 68.

If such changes can be reasonably expected to render any customer terminal equipment incompatible with telephone company communications facilities, or require modification or alteration of such terminal equipment, or otherwise materially affect its use or performance, the customer shall be given adequate notice in writing, to allow the customer an opportunity to maintain uninterrupted service.

When programming emergency numbers and/or making test calls to emergency numbers:

1. Remain on the line and briefly explain to the dispatcher the reason for the call before hanging up.
2. Perform such activities in the off-peak hours, such as early morning hours or late evenings.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Privacy of communications may not be ensured when using this phone.

CAUTION

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device

Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Some cordless telephones operate at frequencies that may cause interference to nearby TVs and VCRs. To minimize or prevent such interference, the base of the cordless telephone should not be placed near or on top of a TV or VCR. If interference is experienced, move the cordless telephone further away from the TV or VCR. This will often reduce, or eliminate, interference.

- **Environment**—do not place the unit in a room where the temperature is less than 5°C (41°F) or greater than 40°C (104°F). Allow 10 cm (4") clearance around the unit for proper ventilation. Avoid excessive smoke, dust, mechanical vibration, shock, or direct sunlight.
- **Routine care**—wipe the unit with a soft cloth. Do not use benzine, thinner, or any abrasive powder. When you leave the unit unused for a long period of time, unplug the AC adaptor from the outlet.
- **If there is any trouble**—disconnect the unit from the telephone line and connect a known working phone. If the known working phone operates properly, have your unit repaired by one of the authorized Panasonic Factory Service Centers. If the known working phone does not operate properly, consult your telephone company.

For product service

- Call 1-800-211-PANA(7262) for the location of an authorized servicer
- Panasonic's e-mail address for customer inquiries
consumerproducts@panasonic.com
for customers in the USA or Puerto Rico ONLY

When you ship the product

- Carefully pack your unit, preferably in the original carton
- Attach a letter, detailing the symptom, to the outside of the carton

Symptom

- Send the unit to an authorized servicer, prepaid and adequately insured
- Do not send your unit to the Panasonic Consumer Electronics Company listed below or to executive or regional sales offices. These locations do not repair consumer products

- This cordless telephone is designed for use in the United States of America. Sale or use of this product in other countries may violate local laws.
- Ce téléphone sans fil est conçu pour être utilisé aux États-Unis d'Amérique. La vente ou l'emploi de cet appareil dans certains autres pays peut constituer une infraction à la législation locale.
- Este teléfono sin cordón fue elaborado para uso en los Estados Unidos de América. La venta o el empleo de este producto en ciertos países puede constituir violación de la legislación local.
- このコードレス電話機は、日本国外での使用を目的として設計されており、日本国内での使用は法律違反となります。従って、当社では日本国内においては原則として修理などのサービスは致しかねます。

**Panasonic Consumer Electronics Company,
Division of Matsushita Electric Corporation of America**
One Panasonic Way, Secaucus, New Jersey 07094

**Panasonic Sales Company,
Division of Matsushita Electric of Puerto Rico, Inc.**
Ave. 65 de Infantería, Km. 9.5, San Gabriel Industrial Park
Carolina, Puerto Rico 00985